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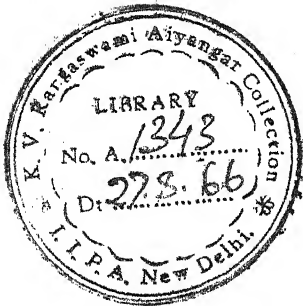
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INTERNATIONAL BIMETALLISM

BY

FRANCIS A. WALKER, PH.D., LL.D.

*President Massachusetts Institute of Technology,
Author of "Political Economy," "The Wages Question,"
"Money," "Money, Trade, and Industry," etc.*



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PREFACE

BY invitation of the President and Fellows of Harvard University, I delivered a course of lectures on Bimetallism in that institution during the academic term now drawing to a close. Of those lectures this book is the public outcome. The material thus brought together is now published, the lecture form being abandoned, while the order of topics and the style of treatment are preserved. I am much indebted to Prof. Willard Fisher, of Wesleyan University, and to President Andrews, of Brown University, for their generous assistance. Prof. Fisher has kindly read, not only the manuscript, but the proofs of this work. While he cannot, under the conditions of a hurried revision and publication, be held responsible for any errors which may still remain, I gladly acknowledge many valuable suggestions and corrections from his pen.

While I began to write on money for the newspapers as early as 1858, my published works on the subject began with the issue of my large treatise in 1878. The year following I delivered a course of lectures in the Lowell Institute, of Boston, which were brought out in book form under the title *Money, Trade, and Industry*. I do not know that I have had occasion to change a single one of the opinions expressed in those volumes. The subject seems to me, as it has always seemed, a perfectly simple one if prejudice and passion are not allowed to obscure it.

While this little work, as the account of its origin shows, was prepared without the slightest reference to the impending political contest in the United States, I shall be glad if it proves to be in any degree instructive with reference to the question which is destined to underlie that great struggle. Though a bimetallist, of the international type, to the very center of my being, I have ever considered the efforts made by this country, for itself alone, to rehabilitate silver as prejudicial equally to our own national interests and to the cause of true international bimetallism. In my *Money, Trade, and Industry*, published after my return from the Paris Conference of 1878, I made use of the following language: "For us to throw ourselves alone into the breach, simply because we think silver ought not to have been demonetized, and ought now to be restored, would be a piece of Quixotism unworthy the sound practical sense of our people. The remedy of the wrong must be sought in the concerted action of the civilized States, under an increasing conviction of the impolicy of basing the world's trade on a single money metal. The demonetization of silver was a work of ill advice. Let its restoration be a work of good advice. The subject is not likely to lose its hold on the public attention so long as gold continues to rise in value. Let us await the time to act with effect; and not forfeit our present remarkable success and imperil resumption by measures which can do no lasting good to the cause of silver and may do much harm to ourselves."

BOSTON, June 19, 1896.

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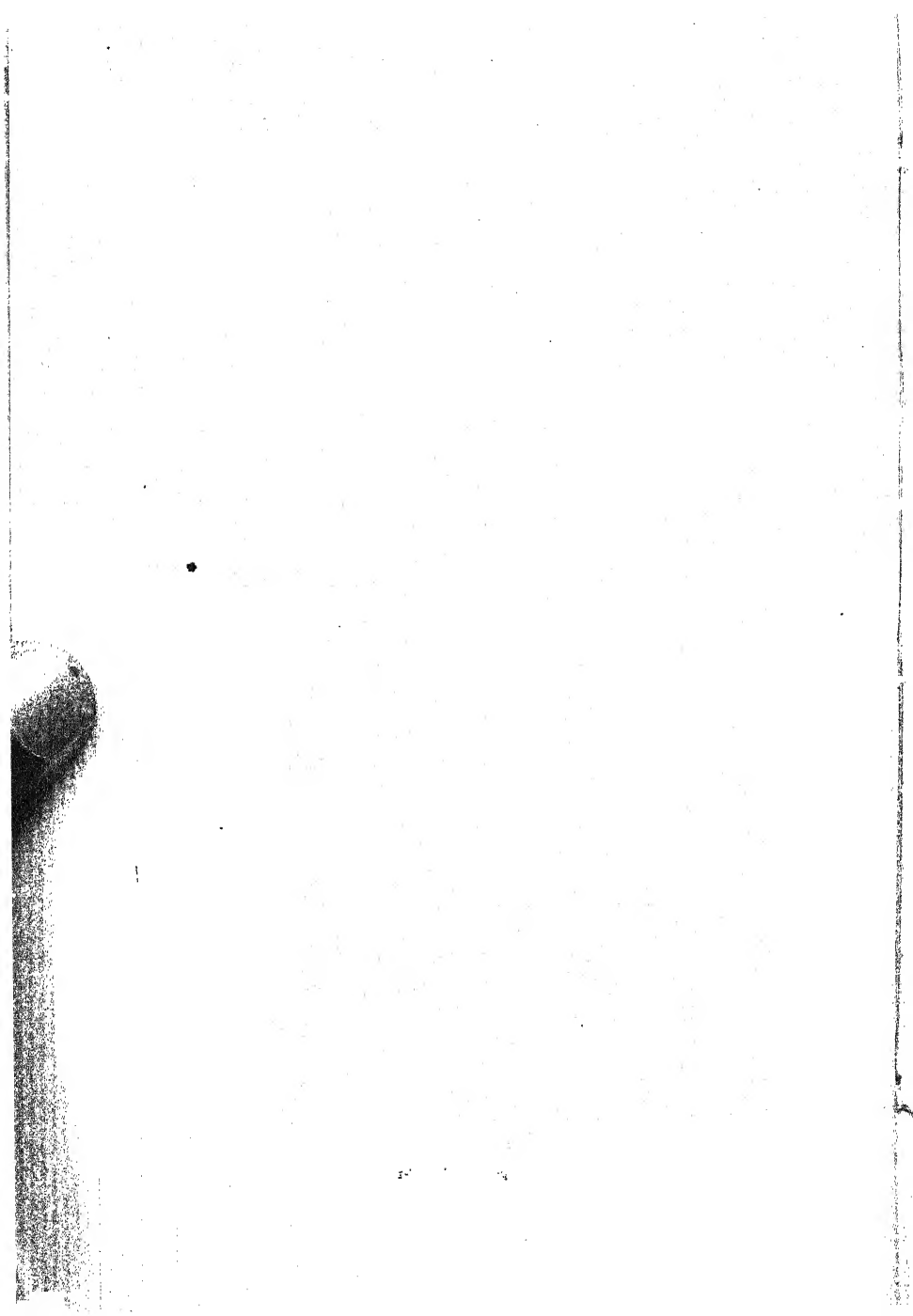
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BIMETALLISM

CHAPTER I.

THE EARLY PRODUCTION OF THE PRECIOUS METALS.

THE word Bimetallism means something concerning two metals, in conjunction or in some mutual relation to each other. In addition to this, it has come to be understood that the two metals are gold and silver; and that this conjunction, or mutual relation, is in, or through, their use as money. Beyond this, bimetalism may mean more or may mean less. In ordinary speech, if without qualification or previous explanation, it means either the system of national bimetalism, with free coinage of both metals at the legal ratio, such as existed in the United States from 1792 to 1873, in France after 1785, and in many other countries at various times; or else, and this more properly, the system of international bimetalism,—again with free coinage of the metals, at a ratio common to the contracting nations,—such as existed under

the Latin Union* between 1865 and 1873; such as has been proposed to be constituted between wider groups of nations, in successive international conferences and in a host of treatises, tracts, and public addresses. The term would, with due explanation, embrace the monetary system which Prof. Alfred Marshall has proposed, and to which Prof. Edgeworth has applied the name Symmetallism—contemplating the union of both metals, in fixed proportions, in a monetary unit, “a linked bar,” on which a paper currency may be based, a proposal somewhat similar to that made by Sir James Steuart, about the middle of the last century†; as well as the system proposed, under the name of Joint Metallism, by Mr. Anson Stokes Phelps, of New York.

There is not much in the sacred or the classical writings of antiquity which bears importantly upon our subject, though there are many curious and interesting allusions or accounts relating to the precious metals. The references to this matter in the Hebrew Scriptures, in particular, have always had a peculiar fascination for the modern man. Few writers on money fail to tell their readers how Abraham paid the children of Heth four hundred shekels of silver for the cave of Machpelah. At the time when the Book of Job was believed to be among the oldest works of

* France, Italy, Belgium, and Switzerland signed the treaty, December 23, 1865. It went into effect August 1, 1866. The Papal States joined the Union, January 18, 1866; Greece, April 10/22, 1867; Roumania, April 14, 1867. See pp. 121, 131, 180.

† Essentially the same scheme is skilfully presented by Professor Theodor Hertzka, in his *Das internationale Währungsproblem und dessen Lösung*. (Wien, 1892.)

literature, its generalization, "Surely there is a vein for silver; and the earth hath dust of gold," was regarded as most remarkable for the keenness and breadth of observation displayed regarding the respective modes of occurrence of the two metals.* But the

* By far the larger part of the gold obtained has come from "placers," on or near the surface, where the metal, in dust or in fine grains, though sometimes in small masses or "nuggets," is found amid sand, gravel, or boulders. The fine particles of gold are separated from the sand by hand-washing, where a pail, a plate, or a shovel answers the miners' purposes; or "sluices" may be constructed, down which the water carries the sand, dropping the heavy, i.e. the precious, particles on the way. More elaborate devices and even delicate and powerful machines are sometimes employed in connection with placer-mining. If the earth, the gravel, and the stones in which gold occurs, have been closely packed into great solid ridges, the force of water, sometimes in tremendous streams, is employed to break up and wash away the whole mass of material, which is then treated as before stated. This is called Hydraulic Mining, which is, however, a form of placer-mining. In later times, gold has been increasingly taken from "veins" or "pockets," where the metal is found mechanically held in place by rock—often at great depths below the surface. Here the rock is raised from the mine and crushed by powerful machinery, and the gold extracted, sometimes by mechanical processes (often merely by introducing the action of gravity), to separate the light (worthless) from the heavy (precious) particles; sometimes by chemical processes. On the other hand, there is no proper "placer-mining" in the case of silver, that metal being found in the rock, generally in chemical combinations, as ores. The treatment of these ores is largely a chemical problem. The agent once most employed to separate the silver from its base associations was quicksilver: to this process the term "amalgamation" is applied. In recent times, smelting with fluxes has become the more common method. Some gold, however, is almost always found associated with silver, the proportion ranging from one-twentieth to one-fifth, or higher, in value. On pp. 593 et sq. of the Report of the Director of the Mint

far later date assigned by modern criticism to those writings makes this saying much less notable. In the Book of Daniel we read of the great image of gold which Nebuchadnezzar set up on the plains of Dura, whose height was threescore cubits and the breadth thereof six cubits. How sumptuous is the description of the great Temple! "So Solomon overlaid the house within with pure gold: and he made a partition by the chains of gold before the oracle; and he overlaid it with gold. And the whole house he overlaid with gold, until he had finished all the house: also the whole altar that was by the oracle he overlaid with gold." There is even a prophecy of Mr. Godkin and the *Evening Post*, in the remark which follows the description of the drinking-vessels of the house of the forest of Lebanon: "None were of silver: it was nothing accounted of in the days of Solomon." Well might Bacon say, "Prosperity was the blessing of the Old Testament," as he read the story of Solomon's splendor, of the fleets arriving from Tarshish and from Ophir; of the spices and the sweet-smelling woods and the precious stones, the ivory and the peacocks and the apes; of the two hundred targets of beaten gold, six hundred shekels to each target; the three hundred shields of beaten gold, three pounds to each shield. Still, all this helps us little towards understanding the nature and uses of money; much less, towards comprehending the relations between gold and silver in the performance of that function. Until we

on the Production of Gold and Silver in the United States, for 1884, is given an account of the big nuggets of gold. They run to a maximum of 2340 oz., worth \$43,534.

know more about the cave of Machpelah, the length and the height and the breadth thereof, than history and tradition have handed down, the statement that Abraham paid four hundred shekels for it throws but a faint light on the purchasing power of money in this time; while the proud boast that King Solomon "made silver to be in Jerusalem as stones," though enough to turn Senators Jones and Stewart into rank infidels, does not suggest a ratio.

The classical writers are even less satisfactory in their allusions and descriptions relating to times before the Macedonian Conquest. Fable is at its worst here. Ignorance and an inflamed imagination unite to engender the most remarkable prodigies whenever the precious metals become the theme of the early writers. The stories of the treasures of Ninus and of Cræsus, the description of the temple of Belus, with its three giant statues of pure gold, and its altars, censers, and drinking-vessels of beaten gold, the circumstantial accounts of the vast revenues of the later Persian kings—all these, while they serve to exhibit the strength of that passion which from the earliest ages has possessed men at the sight or at the very thought of gold and silver and excite our wonder that in such a state of chemical and mechanical knowledge and skill treasures should have been accumulated which could even be misrepresented thus, yield but a slender foundation on which to construct an estimate of the world's stock of the precious metals, or of the sources from which these were chiefly drawn. But the conquest of Persia by Alexander, laying open the treasure-houses of Susa, Persepolis, and Ecbatana, afforded something

like a measure of the metallic wealth which had been heaped up by the toil and blood of millions of human beings, through many centuries, to form the glory of temple and palace, and to become the treasure of priest and king. Whether we discount by more or by less the accounts of Alexander's spoil, whether we believe the seven hundred and forty thousand talents of Ptolemy Philadelphus to have been Roman talents or the smaller Ptolemaic talents, we cannot avoid the conviction that the stock in that early time amounted to hundreds of millions of our money. This is the all-important fact in the early history of the precious metals. Whether the actual amount was larger or smaller would be only of curious interest. The marvel, the miracle, was that it should have reached into the hundreds of millions at all. How was it possible that such a result should be attained? How could it have been desired to put so large an amount of labor into this form of wealth, at a time when the conditions of human existence, generally, remained so strait and painful; at a time when urgent wants had been so scantily supplied; when so much needed to be done to make the life of men and communities merely endurable? When absolute necessities were lacking, why should so much have been given to the highest form of luxury? When bread was scarce, to the point of frequent famine, why should men have dug for gold? When the fertile surface of the earth called aloud for cultivation, offering every variety of grain and fruit and fibre, why should hideous and sterile places have been searched for that which could give neither warmth nor shelter nor nourishment?

Again, conceding the utmost influence of the passion for gold, inciting continuously and unrelentingly to its production, at whatever sacrifice of other objects, even objects of primary necessity, how could such mighty masses have been brought into the hands of men in an age when the simplest mechanic arts were scarcely known, when the accumulations of useful capital were insignificant, before machinery had been invented or the power of steam brought to reinforce human labor? How was such a result, under such conditions, physically possible? Thirdly, how was such a production of the precious metals economically possible, under the law which controls the value of money? It will not be necessary to take much time to answer the first two questions. They are mainly of historic, rather than economic, interest. Perhaps we can best convey a brief answer by pointing out a highly analogous case in the history of the same age. The Pyramids—why should, how could, they have been built with the arts and under the conditions then existing? If we answer these two questions, we shall have all that is needed for an answer to the first two questions regarding the early accumulation of gold. Can we conceive the greatest of modern nations, England, the United States, Germany, or Russia, though possessing many hundred times the constructive power of ancient Egypt, erecting the smallest of the famous pyramids? We cannot imagine it. The motive which could prompt to and sustain the undertaking would be so utterly lacking, in the presence of other urgent and imperious wants and demands, individual or social, that we may fairly say, such a work

would be impossible to-day. The ancient rulers who built those gigantic monuments had but to wish and to will, from whatever perverse or grotesque fancy; and the walls must rise and rise, course after course, though every stone cost a human life. Generation after generation must toil, to fainting and to death, that the mighty mass might lift itself ever higher and higher. The task was completely non-economic: that is, it had no reference to a producer or a consumer, except only that the miserable victims of despotic power must needs be fed, somewhat, that they might keep up their hopeless labor; and children must needs be reared, to take their unenviable place. Even this last was not always a condition, since war and conquest supplied hosts of slaves bred and grown to the size and strength to work in the quarries, on the barges, along the causeways up which the monstrous stones were hauled, or on the walls.

Precisely similar were the terms on which hosts of men labored, through many centuries, to pile up the treasures of Susa, Persepolis, and Ecbatana; and to provide the gold and the silver for the temples at Jerusalem, at Babylon, at Delphi, the palaces of Solomon, of Cræsus, of Pytheus, of Darius, the Capitol, at Rome. To these wretched beings hunting for gold in the sands of the rivers, mining for gold among the barren mountains, was not vocation, but destiny. They were born to it, reared to it, and in it they expended their miserable lives, without hope or thought of a reward. They were not hired, but driven to their work. They were not drawn by superior attractions from other fields of labor; they were

marched in gangs, perhaps in chains, from a short night's rest to a long day of toil. It would be mockery to apply the term, industry, to the gold-mining of the early ages. There were, indeed, those, here and there, who stealthily and at great risk hunted for the precious metals in the hope of gain; but of the vast bulk of the treasures heaped up by the rulers of the Old World, we may, without exaggeration, though in a somewhat violent figure, say it was transmuted blood.

Thus do I answer the first two questions asked, regarding the production of the precious metals in the early ages. The answer to the third will require more time: How was such a production of the precious metals economically possible, under the law which controls the value of money? That law is in effect this: The more freely and largely gold, say, in any given interval of time, is produced, and the longer that production is carried on, the less, other things equal, becomes the motive to continued production on the same scale. The new metal going, it is assumed, into circulation, becoming in some large degree money, raises prices. This fact increases the money-cost of producing further amounts of gold; and thus, in a figure, drowns out the mines, or all but the best mines. The effect is to be compared with a fall of water, which produces mechanical power, but which, in the case of an insufficient outlet below, gradually fills up its basin, every rise in the level of this diminishing the force engendered, until at last the waterfall disappears and we have simply a lake, with a great and useless well in one part of it. An abrupt descent in the bed of the Atlantic, to the extent of several thou-

sand feet, creates no mechanical power. A fall of a hundred and fifty feet in the Niagara River is capable of yielding millions of "horse-power," simply because the water falling is carried away below.

With the small demand for the precious metals for the purposes of commerce which could possibly have arisen from the petty production of goods in those early days, reenforced by the small demand for them for the purposes of ornament and decoration which could possibly have been made effective under a democratic organization of society, or granting merely personal freedom, the production of the precious metals could never have risen to such a height. If it had tended to do so, under any impulse, it would, so to speak, have drowned itself out, by its necessary effect in raising prices. This is the economic condition under which the production of the precious metals is carried on, under the operation of the law of supply and demand. But in the ages of which we are speaking, especially throughout the Eastern world, that production was chiefly non-economic, in a sense even additional to that which we have already expressed. Not only did the proprietor of the mines not have to make it worth while for the laborers in the mines to work for him; but the uses to which the resulting metal was predominantly put were such as to prevent its passing into circulation and thus raising the money-cost of further production. On the one hand, the mines, by unchallenged prerogative the property of the prince, were worked by his subjects, who were equally his property, for his pleasure only; and on the other hand, the products remained his peculiar

possession, or, under the influence of superstition, were devoted to sacerdotal uses. Gold and silver were regarded as an end, not as a means: they became treasure, not money. If they were ever distributed, it was not by trade, but by war. It was the hand of the conqueror that stripped them from palaces and temples. If they were taken from the storehouses of monarchs, it was not to freight the caravans of commerce, but to fill the chariots and mule-carts and to lade the sumpter-horses or the camel-trains of a victorious army.

Hence it was that the geographical distribution of the precious metals was effected so tardily, if at all. The wealth or poverty of a kingdom, as measured by its possession of gold and silver, was determined, primarily, by the fact of mines being found, or not being found, within its limits; secondarily, by the military prowess of the people and the ambition of their princes.* Persia became rich, in this respect, beyond all precedent, because her rulers conquered so many countries which had mines of the precious metals. It was with treasures torn by Cambyses from the temples of Egypt that the palaces of Susa and Persepolis were built. It is related that Philip of Macedon, in the early part of his reign, before the mines of Thrace were opened to him, was wont to place under his pil-

* Mr. Jacob remarks that the northern nations of Europe appear to have possessed more gold and silver during the Middle Ages than was to be found in Germany, France, or the British Islands. There is reason to believe that this abundance was due to the success of the piratical expeditions which scourged the shores of so many countries, perhaps, also, in a measure, to a profitable trade with Russia.

low the small and only cup of gold which he possessed. That Philip's son loaded with the golden spoil of Persepolis ten thousand mule-carts and five thousand camels. Speaking broadly, we may say that the law of supply and demand had little to do with the production of the precious metals; and that these, when produced, were not distributed through the agency of price. To this rule there were, of course, exceptions. The peasantry of many districts, by secret labor, extracted small amounts of gold from sources, especially the river-sands, which had not aroused the attention of their rulers. No degree of vigilance could guard against the unfaithfulness of slaves and overseers, who pilfered even at the risk of life. And when the accumulations of treasure fell into the hands of the conqueror, enormous waste was the certain accompaniment of the transfer; large sums were seized by the soldiery in the hour of sack and pillage; while the successful general from time to time appeased his mutinous followers by donatives of gold which were speedily dissipated and passed into circulation. The chief exception, however, to the non-economic character of the production of the precious metals was found in the trade of the Tyrians, and afterwards the Carthaginians, who early directed their great commercial talents to exchanging the silver of Western Europe, especially of Spain, for the gold of Arabia and the further East, perhaps of India itself. Nor could the statements previously made be applied without large and increasing exceptions after the beginning of the fourth century before Christ. Even in Persia, itself, the extensive coinage before the invasion of Alex-

ander showed that gold had already begun to lose its character as treasure and to take on that of money.

The Macedonian Conquest changed, to a great extent, the conditions under which the production of the precious metals had been carried on. The recklessness of Alexander and the necessity of furnishing vast donatives to a daring, defiant soldiery, combined to give a merry circulation to the marvellous spoil of Persia. The influence upon prices of this wide and often wanton distribution of the gold which had been locked up in the treasure-houses of kings, could not fail to be very great. Yet the operation of economic law upon the production of the precious metals was still imperfect and incomplete. Profuse and profligate as Alexander might be, it was impossible for one man, in so short a life, to dissipate treasures so vast; and his successors fell largely under the influence of oriental ideas and became true Persian despots and instinctive hoarders of gold. It was the progress of Roman armies which finally and completely released the uncounted treasures of centuries. It was impossible for Roman statesmen, had they so planned, to deal in the Oriental spirit with the immense body of gold brought into the treasury by the victories of the Scipios, Paulus Emilius, Pompey, and Octavius. The democratic impulse which prevailed at Rome under the Republic, and which rose to its greatest height under the most profligate and arbitrary of Emperors, forbade anything like a Persian treatment of the precious metals. Bribes to senators, donatives to the soldiery, gladiatorial shows and public distributions of grain and bread for the multitude, ere long put into circulation the

long-accumulated treasures of the East. From this cause came results of the most far-reaching consequences. For thousands of years the production of the precious metals had been conducted, on a vast scale, under non-economic motives and principles. Suddenly, violently, by conquest and force of arms, the whole mass came under the control of economic law. The result could not have fallen short of a revolution. The immediate effect upon prices, and, by consequence, upon industry and trade, could not fail to be enormous. But more, and that all for evil, remained to follow.

Let us pause to consider certain liabilities to injury, to loss and even to irreparable destruction, to which the mining industry is, by its very nature, subject. While greed, the haste to be rich, is always and everywhere the enemy of true self-interest, it nowhere obtains such a mastery over the senses of men as where gold and silver are in sight, the immediate objects of exertion. Never do men so wantonly sacrifice the future to the present, never so completely disregard the larger considerations of prudence. This is not due merely to the fact that the production of the precious metals has generally been pursued at a distance from the permanent seats of population, under conditions difficult and perhaps dangerous, and hence by men more than usually reckless and subject to the force of immediate desire. Largely is it attributable to the mysterious attraction which these metals have exerted upon the powers and passions of men of all races and in all ages.

But while greed is often opposed to true self-in-

terest; and while it is easily exalted to frenzy in the prospect of the precious metals, there is, also, no industry in which so wide a difference is made, in the large, the ultimate, result, according as men work under the blind impulse of immediate acquisition, or under the direction of an intelligent sense of self-interest, extending its view beyond the present to a distant future. Time will not serve us to go deeply into the technicalities of the production of gold and silver: one or two illustrations will suffice. Here is, let us suppose, a superficial deposit of gold dust in the bed of an old river. Throughout certain portions of the former channel, where the forces of the current especially directed it, the gold lies richly mingled with the sand. Over other portions, it is found more and more sparsely,* yielding a less and less return to labor. Is it not evident that a hundred men, under intelligent direction, animated by the purpose to secure for themselves, as a body, the largest amount of the precious metals from this deposit, would proceed very differently from a hundred miners who should rush into the bed of the old stream, each struggling with furious haste to get the most he could before night, careless how much he wasted in his search, half-washing the sands, and letting more than he obtained be carried down, to lodge in places which would escape

*M. Chevalier states that in the Ural Mountains they work with success sands which contain only 1 part of gold in 400,000 or 500,000. In the Valley of the Rhine, "the most favored spots, those which the gold-washers hunt for, and on which they concentrate all their efforts, contain only 1 kilogramme in 700,000." In the placers of California and Australia, gold was found in a much higher degree.

the eye, or in quantities which would not pay the working?

Let us now transfer our view to the production of the precious metals no longer from the bed of streams, but from the deep recesses of the earth, where shafts have to be driven hundreds of fathoms through solid rock; where the roof under which the miners work by the light of their torches has to be supported by beams of timber or by pillars of stone left in the progress of the excavation; where life has to be guarded most carefully and expensively against mephitic or explosive gases; and where the mines have to be kept free of water by constant pumping or systematic drainage. Under such circumstances there is a peculiar necessity that the present be strictly subordinated to the future; that the greed for immediate acquisition be held strongly in hand by prudence; that all work be done in the large view of true self-interest. If only indolence furnishes in insufficient quantity, or of inadequate material, the timbers which are to shore up the sides and the roof of the galleries, or if, in the haste to push the work that yields so richly its golden gains, the accumulation of fire-damp is unnoticed or neglected, one awful hour may close the mine forever.

So much for the effects of greed upon the work; how of the worker? The statistics of mining populations show a horrible waste of life, arising from recklessness in exposure and from parsimony in expenditure, even where laborers are free to make terms with their employers. If so, how rapid must have been the consumption of life and laboring force, when mines were generally worked by convicts and slaves, driven

to work, by gangs, in chains! We have yet another step to take in the same direction. Let us suppose the mines to be worked, not by the owner and master who could never entirely forget the claims of the future, never be wholly inconsiderate of his own property, but by the farmer, cut off, by the very terms of his lease, from all interest in the distant future; intent only on achieving the maximum of immediate production with the minimum of outlay; indifferent as to the condition in which he shall leave the mine at the expiry of his legal interest therein, and as to the labor-supply of the next lessee. Here, at last, we reach the explanation of the havoc which has been wrought upon the mining resources of the world, a havoc which is eloquently witnessed, throughout Europe, Asia, and Africa, by abandoned mines never truly worked out, and by the utter sterility of regions once the sources of rich supplies of metallic wealth.

Nor can we afford to disregard the effects of war and civil commotion upon the production of the precious metals. The fire runs over the fields and burns and blackens all around; but, another year, nature blooms with even a greener foliage and a larger fruitage, since what was wasted also fertilized. The fire that sweeps over the mouth of the mine leaves blackness and the horror of a deep silence, only. Such, in a figure, is the difference between the effects of war or civil convulsion upon mining, and upon agricultural industry. No cause has been more potent for closing mines not yet exhausted. Even religious persecution has set its seal over the mouth of many a mine, a seal never to be broken. The mining population scattered,

the mouth of the mine fallen in, the roof here crushing the neglected timbers, the subterranean springs there filling up the vacant galleries, this once fertile source of supply is added to the almost countless number of those which have ceased to contribute to the world's supply.

Such are the evil liabilities which especially attach to the mining of the precious metals. Let us now inquire how far Rome was qualified, whether by the instincts of her people or by the characteristics of her administrative system, to take up the work of maintaining the world's stock of gold and silver, which devolved upon her by the conquest of nearly all the great fields of production. Through the unstaying progress of its arms, not only had Rome, by the second century after Christ, acquired possession of nearly all the mines throughout the world then yielding the precious metals; but a large proportion of the whole mass of gold and silver which had been produced during preceding centuries was drawn to Italy. Mr. Jacob estimates the stock of money in the Empire on the accession of Augustus at £358,000,000 sterling. But while Rome seized the accumulated treasures of Carthage, Spain, Gaul, Greece, Asia, and Egypt, throwing into circulation, as money, among her people, what had been hoarded as royal treasure or devoted in vast masses to sacerdotal uses, thus raising the prices of all commodities throughout the Empire, and especially in Italy and the countries nearest the capital, Roman dominion proved fatal to the continued supply of the precious metals. The Romans were unskilled in mining. Italy was, perhaps, of all the

countries embraced within the Empire, that which had least developed its own mineral resources. This fact undoubtedly concurred with the Roman instinct for the simplification of administration, to induce the general adoption of the system of "farming" the mines, with the result, both upon the mines as properties, and upon the laboring populations pertaining to them, which has been described as incident to that mode of working.

"The farmers," says Mr. Jacob, "took out only the best ores, and neglected those of inferior quality; leaving them in the pits, where they soon became buried in the rubbish with which they were surrounded. Their object being to enrich themselves during the term for which they held the mines, they naturally neglected the interests of future workers and suffered them to go to ruin. Whilst exhausting the mines of the richest ores, they only cut the passages and propped the roofs in so slight a manner that, if they lasted during the current leases, they would all require to be reconstructed in a short period after; which, when the best ores had been extracted, would be at an expense that could not be replaced by any product of the inferior ores which had been left behind. The various contrivances for keeping out the water from the mines, and the machines and the implements for extracting what could not be kept out, were all contrived to answer temporary purposes commensurate with the length of the period for which they were let to farm."

In still another way Roman dominion served to diminish the productiveness of the mines, which, in Spain, Thrace, Asia, and other gold- or silver-bearing countries, had been worked, for the benefit of the local sovereigns, by convicts, by conscripts, or by serfs. The crop of convicts in those brutal days was never likely to fail; and, as their labor was essentially

non-economic, i.e., as they had, in any case, to be confined at the public charge, the produce of their labor bore no necessary relation to the cost of their maintenance. It was otherwise with the conscripted and the adscripted laborers in the mines, those drawn by lot and those born to the service. If the supply of these was to be kept up from generation to generation, the produce of their labor must be charged with the cost of maintaining them, together with their families. A fourth class consisted of slaves, the captives of almost incessant wars. The employment of these, again, was chiefly non-economic, being without reference to repaying the cost of bringing the present body of laborers to maturity. It was by this last means that the labor-supply of the mines of the earlier period was largely recruited. The gradual extension of Roman dominion brought about a state of almost universal peace, merging a thousand warring tribes in one vast empire: a state of peace interrupted only by civil commotion, the results of which, however bloody, did not include the reduction of the soldiers of either faction to the condition of slavery. Thus war, as a source of labor-supply for the mines, practically ceased. Slaves were still, it is true, brought into the Empire as the result of piracy, or of trade with barbarous regions beyond the reach of Roman power; but these were hardly numerous enough to meet the demands for personal service, under the growing luxuriousness of the age; and purchased slaves soon became too costly to be employed in the difficult and dangerous work of mining.

There remained, as a resource for working the mines

of the precious metals which had been acquired by conquest, the labor of convicts and of serfs. As the difficulty of securing laborers from other sources ceased, labor in the mines was more and more made the penalty of crime, until this mode of punishment became almost universal; while successive decrees increased the traditional obligations of the peasantry in the neighborhood of mines. The severity of these exactions, coupled with the cruelty of the farmers and overseers, made great inroads upon the unfortunate populations. Soon a new danger presented itself. The barbarians appeared on the borders of the Empire, offering a refuge to those who had the courage, born of despair, to attempt their escape from the power of Rome. Next, the barbarians thrust themselves into the Empire; and the lands earliest invaded were those on the produce of whose mines the world was most dependent for its supply of the precious metals. The serfs became the personal slaves of the conquerors, or swelled the ranks of their armies.

Such were the causes which, in swift succession, reduced the labor-supply of the mines of the Empire. Meanwhile, so wasteful had been the operations of the "farmers," that the earlier emperors had been driven to assume the charge of the mines, which were again worked by public officers on government account. It will not be necessary to speak of the various measures resorted to by successive emperors to stimulate the failing production of the precious metals; of grants to individuals to work mines on shares; of edicts, issued almost in despair, making mining as "free" as many nowadays wish banking to be; of efforts to systema-

tize the administration of the mines and to introduce scientific knowledge and technical skill into the conduct of mining operations. The production of the precious metals had received a shock from which it was not to recover for a thousand years. Under circumstances and conditions so adverse, the mining industry was doomed.

“We may safely conclude,” says Mr. Jacob, “that after the third or fourth century the labor of extracting the precious metals had gradually diminished within the limits of the Roman Empire; and that, from the fifth century, after the more afflicting irruptions of the barbarians into the weak and tottering Western Empire, it had altogether ceased.” “In the period from about 480 to 670 or 680, the greatest diligence has been able to discover no trace, in any author, of the operations of mining having been carried on.”

Meanwhile the vast stock of precious metals which had been accumulated before the Christian era, cut off from all source of supply, began and continued to waste away at a rate which was determined, in part by the necessary conditions of coin in actual circulation; in part as the result of war, civil disturbance, individual violence, and the accidents of fire and flood, or the sudden death of the owners of hidden treasure. These elements cannot, in the nature of the case, be computed. To-day the most skilled statistician would fail to determine, even only approximately, the rate of loss by abrasion of coin * and by consumption in the arts. Much less could the historian, looking back upon the deeply shrouded ages after the opening of the

* For estimates as to loss by abrasion from coins of different sizes, see Chevalier, *Baisse Probable de l'Or*, pp. 101-2.

Christian era, presume to measure the operation of such forces in such a time, under conditions that have so largely disappeared. Mr. Jacob, in his well-known work from which I have already quoted, undertaken at the instance and request of the illustrious English statesman and economist, Huskisson, feeling himself obliged to make some statement in positive form regarding this matter, has assumed a rate of loss, for the body of the precious metals in existence at the time of Augustus, of one part in 360, each year, from that time onward through the centuries. Applying this ratio, he reaches the startling result that the body of gold and silver in the Western world, which he estimates at 358 million pounds sterling, for the year 14 A.D., had by 806 wasted away to 33 millions. It is not necessary to accept these figures as truly indicating the volume of the precious metals in the year 14, or in the year 806, or at any intermediate year. Whether the treasure of the Roman Empire under Augustus amounted to 358 millions sterling, or only three-fourths, two-thirds, or one-half of that sum; whether the process of decay went on at the rate estimated by Mr. Jacob, namely, one part in 360, or at a rate more rapid or more slow; whether the stock of 806 A.D. was 33 millions, or more or less, does not greatly concern us. The facts are undoubted, and they are fairly represented by the figures put forth by Mr. Jacob, (1) that the world of Augustus was in possession of a vast, an almost inconceivably vast amount of treasure, which never could have been accumulated under the operation of economic laws, that is, if free men had had to be hired by sufficient

inducements to work for gold which, in turn, was to go into the channels of trade and affect prices; (2) that when this vast body was at its greatest extent, the sources of supply were rapidly and violently cut off, in the general way described; and thereafter, for generations and centuries, the existing stock was left helplessly subject, without restoration or repair, to hostile forces which never ceased to work upon it, until it had been reduced to a small fraction of its former mass.

CHAPTER II.

AUGUSTUS TO COLUMBUS.

AT the close of our last chapter we contemplated the vast stock of the precious metals wasting away under continuous wear and accidental loss—all sources of supply cut off by the destruction of the mining industry—like a mighty iceberg drifting into southern seas, melting and disappearing at a rate determined only by the activity and intensity of the hostile forces acting upon it, without possibility of restoration or of repair. This state of things lasted for centuries. The practical cessation of mining industry, during a period of time embracing centuries, created a situation which is interesting to the student of monetary science in general; and has a special bearing on the particular question we are to consider. We have here an absolutely pure case to contemplate, in considering the question what determines the value of money. Inasmuch as the precious metals are usually being produced more or less freely at the time in which an author is writing, or any two persons are discussing the subject; and, inasmuch as the cost of that production does unquestionably sustain a certain relation to, and exercise a certain influence upon, the value of the product, there is always a strong liability to form an exagger-

ated idea regarding the degree of that influence and thus lose sight of the forces which chiefly control prices. Every one who has read extensively in the literature of money, every one who has attended at all to the course of popular discussion, knows how persistent and obtrusive is the idea of present cost and present volume of production, as explaining changes in the values of the day. As has been said, there is a relation here; but that relation is in popular estimation assigned an importance which sometimes produces even the effect of falsehood. It is, however, in the controversy between the bimetallists and the monometallists that these exaggerated views have produced their greatest effect in disguising the real forces at work upon prices.

The fact is, cost of production has nothing to do with the value of anything, except as it influences, or may in the immediate future influence, the supply, either actual or potential. This statement is beyond the reach of discussion. "Labor once spent," says Prof. Jevons, "has no influence upon the future value of any article." Inasmuch, however, as the supply of most commodities in the market is mainly the result of yearly production, perhaps of production within an even briefer term, it is natural that the mind should come to contemplate present cost of production, as practically determining value. In the case of other articles, however, which have years of life, the correspondence between present cost of production and value becomes less complete, considerable discrepancies appearing and remaining through a long time. But it is in the case of the precious metals,

which might, with a view to any brief period be called practically indestructible, that present cost of production has the smallest influence upon value. This is a familiar principle; it has been mentioned by a hundred writers on money; yet I have seen few works from the monometallist side in which it is given its proper bearing in the treatment of certain important periods of the world's monetary history; and I find in many writers an almost entire neglect of that consideration. Hence it seems to be peculiarly wholesome that we should go back to a period when there was no cost of production, because production did not take place; where we can contemplate a mass of money metal as completely cut off from any influence arising from the efforts and sacrifices involved in its production as if it had been discharged upon our earth through the explosion of some other planet. For centuries, the precious metals which had been gathered by infinite toil and sacrifice on the part of uncounted generations, remained without reinforcement or repair from any source, wasting slowly away under the influences that have been described. In contemplating the situation, the merest tyro in economics cannot fail to appreciate the true relation of the volume of money to prices. He cannot fail to see that here is a perfectly pure case of demand and supply: just as truly so as if gold and silver had had no cost of production at all, but were furnished by Nature gratuitously, in limited quantities. What the value of money, under these conditions, should be, would depend solely on how much of it there was, and how much it was wanted,

I have said that the value of the precious metals, like the value of everything else, depends wholly upon the relation of supply and demand, cost of production being only important as it shall influence the future supply. There is, however, a single particular in which the correspondence between metal-money and other commodities fails. This cannot be better stated than in the words of John Stuart Mill, as follows:

“The value of other things conforms to the changes in the cost of production, without requiring as a condition that there should be any actual alteration of the supply; the potential alteration is sufficient; and, if there even be an actual alteration, it is but a temporary one, except in so far as the altered value may make a difference in the demand, and so require an increase or diminution of supply, as a consequence, not a cause, of the alteration in value. Now this is also true of gold and silver, considered as articles of expenditure for ornament and luxury; but it is not true of money. If the cost of production of gold were reduced one-fourth by the discovery of more fertile mines, it might happen that there would not be more of it bought for plate, gilding, or jewelry than before; and if so, though the value would fall, the quantity extracted from the mines for these purposes would be no greater than previously. Not so with the portion used as money: that portion could not fall in value one-fourth, unless actually increased one-fourth; for, at prices one-fourth higher, one-fourth more money would be required to make the accustomed purchases; and, if this were not forthcoming, some of the commodities would be without purchasers, and prices could not be kept up. Alterations, therefore, in the cost of production of the precious metals do not act upon the value of money except just in proportion as they increase or diminish its quantity, which cannot be said of any other commodity.” (*Principles of Political Economy*, III. IX. 3.)

Returning from this excursion, let us again consider

the monetary situation as it existed at the time when the mining industry had ceased throughout Europe, as the result of causes which have been indicated. We have no data regarding prices in this period which would afford ground for any induction; but we may fairly assume that there was a steady rise in the value of gold and silver, from the time of their greatest plenty, say, under Augustus, on to the time when the stock reached its minimum—which, merely for purposes of illustration, we have taken at the date given by Mr. Jacob, namely, 806 A.D. From that time onward there would appear to have been a slight change for the better, so far, at least, as to arrest the absolute waste of the small stock remaining. In part, this change was due to causes which cannot be defined, including, doubtless, minor improvements, from age to age, in the mechanic arts; in part, to the increasing value of gold and silver, arising from the reduction of the stock, which incited every possible producer, whether the royal owner of mines or the peasant living by the bed of old streams, to put forth the utmost energy for their production; in part, also, to the discovery of new mines, especially of silver. The Saracen invasion of Europe caused the reopening of many Spanish mines which, under the Suevic or Gothic monarchs, had remained untouched; and these for a time made important contributions to the supply. This revival, under the Moors, of the silver production of Spain was probably due, not more to the engineering skill of that people than to the fact that their conquests had given them vast numbers of Christian slaves. The mines of Saxony, in the Hartz district, were discovered about

the tenth century. The mines of Hungary, especially at Kremnitz, had begun to be worked even earlier, and have not yet ceased to be of importance. But it was the mines of Austria—richest in mineral wealth of all the countries of Europe—which constituted the chief source of supply during the earlier middle ages. Yet, if some slight revival of mining industry between the ninth and the eleventh centuries may be conceded to have had the effect of putting a stop to the actual waste of the small stock that remained out of the vast accumulations of the early Roman Empire, metallic money still remained woefully inadequate. We can hardly be mistaken in attributing to this cause much of the hopelessness, the immobility, the dull acquiescence, the death-in-life of the era from the barbarian invasions onward for centuries. A diminishing money-supply, especially where credit-substitutes cannot in any important measure be introduced to meet the wants of trade, is one of the most tremendous causes of mischief, industrial, social, and political, known to men. The wasting away of the vast treasures of Augustus, generation after generation, century after century, until gold, which had been thrown about by the handful in the days of the Roman conquests, became too valuable for the purposes of circulation, and what was left hid itself in the caskets of bankers and the cabinets of princes, while silver, which had been “as stones in the streets of Jerusalem,” grew so scarce that much of the coin of those ages became mere “black money,” could, in the nature of the case, not have failed to produce a profoundly discouraging, a continuously depressing, influence upon trade and produc-

tion and every form of human activity. The steady drag upon current industry and enterprise, due to the continuous enhancement of the burdens derived from the past, in the form of debts and fixed charges; the increase in the weight of taxation, which seldom lets up as the value of the money in which it is to be paid advances; the deadly cutting into the profits of actual business and the penalty which falling prices invariably place upon productive enterprise,*—these are causes which would naturally produce precisely the effects we contemplate. It was the course of the crusades, considered as a whole, but especially the practical results of the later enterprises for the recovery of the Holy Land, which, so far as we may judge, with such imperfect information, brought about the first considerable improvement in the condition of Europe, so far as the money-metals were concerned. The new supply, to what we have thus far spoken of as “the world,” was not to come chiefly from its own resources, but from a region which, in the economic sense, could hardly be thought of, at that time, as of the same sphere with Europe and the parts of Asia which border upon the Mediterranean, the Black, and the Caspian Sea. To the economist, as to the historian and the philosopher, THE EAST has ever been a land of profound significance and deep mystery. The domination, there, of custom, in the place of contract, the force of caste and tradition, the immobility and fatalistic spirit of those populations, their disposition to regard the precious metals as an end in themselves, mark India off from the rest of the world, in the view of the

* See pp. 200, 201.

economist even more distinctly, if that be possible, than in the view of the student of law or of religion. The impulse which the earlier crusades gave to the intellectual and commercial activity and ambition of Europe was immensely heightened by the practical effects of the later crusades, bringing into circulation great treasures which had, under the Oriental instinct of hoarding, escaped destruction, and, also, bringing under European control the most productive mines of gold then in working. - Venice, especially, profited by the crusades, not only securing vast treasures by the expedition which captured Byzantium at the beginning of the thirteenth century and seated Baldwin on the Eastern throne, but acquiring possession of extensive territories, embracing the Crimæa. The middle of the century had scarcely been reached when the results of the new supply were seen in the gold coinages of Italy. To the statement already made that gold after the fifth century had practically disappeared from circulation, two exceptions require to be made; one in regard to the continued coinage of that metal, though not in large amounts, by the Moors of Spain; the other, and by far the more important, in regard to the minting of gold at Byzantium, the seat of the Eastern Empire. Gold coins of a high degree of perfection continued to be produced here, throughout the ages of greatest depression. These coins enjoyed the greatest reputation all over Europe, as the occurrence of their name, byzants, in countless places in history and literature, testifies. In 1252, as the date is usually given,*

* See Shaw's History of Currency, p. 3.

Florence put forth the gold coin destined to become so famous under the name of *florins*, and to furnish the type for the coinages of many nations. Moved by this example, within a short time Genoa coined gold; England manufactured her gold "pennies"; France, under St. Louis, produced coins of gold, and Venice coined the zechin.

The institution of gold-coinage gives us our subject. Thus far we have spoken mainly of the precious metals in the aggregate, or of gold alone, referring to silver only occasionally, and then rather as a complement to gold in forming the aggregate of precious metals, than as a competitor, or as an object of exchange for gold. In but a few instances have we had reason to refer to them as pitted against each other. In these instances, the references have generally been of a nature disparaging to silver. But the gold-coinages of Italy, France, and Northern Europe, in the thirteenth and fourteenth centuries, brought up at once, in an active form, the question of the relative value of the two metals. The theory of bimetallism did not then exist. Still, at the very beginning, it was necessary to take some ratio; and this created an issue of a very important and a very troublesome nature. The history of the coinage laws of Europe exhibits an unceasing struggle on the part of the several states to attract and to keep, each for itself, a sufficient supply of each of the two metals. This, in those days, meant getting the money-metals away from other states; and every contrivance and sacrifice was resorted to for the purpose: changes in valuation, proclamation on proclamation, penalties on the exportation or melting down

of money, premiums on its introduction from abroad.* It would be difficult to exaggerate the fatuousness of the policies adopted, or the degree of failure which usually resulted.

Four things require to be said in qualification of the impression which the story of these struggles for the possession of the world's stock of the precious metals, in early ages, is calculated to produce on the mind of the reader. First, it is very difficult to get at the facts with confidence. Secondly, the scheme was prosecuted with an utterly false idea as to the true interest of nations in respect to the acquisition and retention of the precious metals. The notion that money was the sole wealth had almost complete possession of the minds of the people of those days, statesmen, merchants, and the populace alike; and, consequently, there were bitter complaints and a great outcry regarding the export of the precious metals, even when due to a movement which was, according to the wiser philosophy of the present day, in the nature of a beneficent distribution. Thirdly, the failure of the coining authorities to issue fractional money, as is now universally done, at a value relatively less than that of the principal coins, gave rise to an infinite amount of distress and complaint, which was absolutely unnecessary, as in no way or degree involved in the proper working of bimetallism.†

The fourth point to be noted in this connection is that the whole matter of the relations of the two metals, in this period, is greatly and almost inextric-

* See Chevalier, *Baisse Probable de l'Or*, p. 175.

† See pp. 62-4, following.

cably complicated by abuses of the coin, on the part either of the coining government or of sweaters and counterfeiters, or, more commonly, of both. The official rascality of those times often put private roguery to shame. There was scarcely a trace of regard for national honor or of respect for the right of the community to a sound currency, while the actions of many rulers were highly flagitious. Prof. Thorold Rogers says:

"Hardly a European government fulfilled the duty, even if they understood and acknowledged it. But the kings of France were the principal offenders. They diminished the amount of silver in their coins. This is a temporary wrong, a remediable offence. But they debased it also, a far more serious and lasting evil. Philip the Fair was threatened with excommunication by Boniface the Eighth for this fraud, and was branded as long as time lasts by Dante for his offence. . . . But the greatest offender in this particular was the unlucky John,* the prisoner of Poitiers. . . . Owing to this king's practices—whom the romances called the Good—the value of the currency underwent seventy changes in ten years. John took an oath of his moneyers that they would keep his frauds a profound secret, especially from the merchants. . . . To me the weakness of France, during the century 1340-1440, seems to be directly traceable to economical causes, to the universal distrust which these royal frauds induced.† . . . Exactly similar results, though perhaps of a less serious kind, attended the frauds of Henry VIII. and the Protector Somerset." (Hist. Gleanings, I. 95-97.)

* Prof. Rogers elsewhere calls him "a smasher in his own mint, a swindler of his own people."

† In section V of his *Baisse Probable de l'Or* M. Chevalier gives an account of the French coinages and the debasement wrought by successive monarchs.

The irregular and often secret progress of the corruption and debasement of the coin of a country might, as will readily appear, so pervert the relation between the coinage of the two metals as to produce an impression on the student of money directly contrary to the truth. Thus, suppose a certain class of gold coins, newly imported from abroad or fresh from the local mints, to come into competition with coins of silver, at a legal ratio disparaging to the latter. The silver, then, being underrated, would, according to the usual statement, flow away to some market where it brought a better price in gold. Yet, in fact, the silver coins might be found so generally abraded and corrupted that it would be the gold which would be exported, in spite of all the efforts of the government to retain it. Such a result would seem to show that gold was underrated in the coinage, whereas, in truth, it was only undervalued in exchange for the actual, debased silver coins in circulation. It will be seen that such a possibility should make any student of mediæval moneys at times exceedingly doubtful as to the real cause of a perhaps continuous and persistent bullion movement.

However far the force of the foregoing considerations may extend, the general fact is not to be denied that, from the beginning of the gold coinage of the thirteenth century on to the discovery of America, the legislative and executive edicts and proclamations of the States of Europe exhibit countless efforts to keep one or the other metal from slipping away. This acknowledgment might be extended too far. Great ostensive instances of the inability of law to control

the actions of men in view of pecuniary temptations have given rise to sweeping generalizations and easy predictions which are not justified by a closer examination of the facts. Some very bad history and very bad political economy has come to be written in this way. Listen to the words on this subject of Mr. John Stuart Mill, a philosopher whose reputation for sound and calm wisdom stands higher to-day than it did at his death, twenty-five years ago. Mr. Ricardo, in his famous tract, *The High Price of Bullion*, having said: "It is by all writers indiscriminately allowed that no penalties can prevent the coin from being melted when its value as bullion becomes superior to its value as coin," Mr. Mill remarks: "The effect of prohibition cannot have been so entirely insignificant as it has been supposed to be by writers on the subject. The facts adduced by Mr. Fullarton * show that it required a greater percentage of difference in value between coin and bullion than has commonly been imagined, to bring the coin to the melting-pot." (Political Econ., III. IX. 1.) This statement is just. The assertion that prohibitions and penalties are impotent to prevent or check the melting or export of a metal which is undervalued in the coinage, is opposed to experience and to reason. It would be as sensible to say that government can never collect any revenue from imports, because it will always be for the interest of the importer to evade the payment of duties. It is true that, as the rate of duty rises, the temptation to smuggling increases. It is also true that, on certain

* *The Regulation of Currencies*, pp. 7-9, footnote.

kinds of articles, easily transported and concealed, the rate of duty may be raised so high that smuggling will become general. But, on the other hand, it may be said, first, that, on even the articles most easily transported and concealed, very high duties never cause commodities wholly to escape impost; secondly, that in regard to most articles, such as are somewhat less easily transported and concealed, moderate duties, even duties pretty stiff and onerous, are collected with but small loss from smuggling; thirdly, that, in regard to articles still less favorably related to smuggling, the customs lists of any protective country are full of instances where duties not inconsiderable are paid on substantially every yard or pound or bushel imported. It is little less than ridiculous to say that, while importers are so far mindful of pains and penalties, exporters are absolutely indifferent to them; to admit that the United States collects a duty of ten per cent on nearly the whole amount of diamonds brought into the country, yet to assert that gold, a far bulkier product, would go out, against no matter what prohibitions, for the sake of a quarter of one per cent profit. Importers and exporters are alike human beings, of the same feelings, fears, affections, appetites; and are equally influenced by pains and penalties.

We here see the justice of Mr. Mill's correction of the familiar generalization regarding the inefficacy of laws regulating the trade in the precious metals, which is precisely of a kind with a lot of the economic propositions of a certain school. Such inhibitions, in the nature of the case, cannot be without result. The

question is wholly one of proportion, like most things in this world. The chance of losing fortune or liberty or life has to most men a money-value. Set the price too high,* and they will defy the law and take their chances. But to say that such a danger is not a condition which will influence the action of men, is unreasonable. In his *Practical Observations*, Mr. Bosanquet remarks, regarding the Report of the Bullion Committee: "The conscience of the exporter and the value of a false oath are correctly stated by the committee at four and one-half per cent." The market price of consciences would seem to have fallen in the course of a century, for "A. V.," in his letter to Lord Godolphin, in 1696, speaks of twenty per cent as "a good alloy for any scruple of conscience" in the melting of the coin. I will cheerfully concede that a profit of less than four and a half per cent would now suffice for a very considerable movement of bullion, in spite of law and penalties and manifests and steam revenue-cutters; but, as one who believes that political economy should have some relation to common-sense, I feel bound to protest against the "orthodox" opinion on the subject under consideration.

Let us now, without attempting a complete analysis at this stage, inquire a little more closely regarding the economic principle which governs in this matter of the export or melting of undervalued coin. When

* The newspapers state that since the duty in diamonds has been raised to 25 per cent by the new tariff of the United States, the receipts have fallen off.

a youthful student of political economy, I may have read something about Gresham's Law; though I cannot remember when or where. While still a youthful professor of political economy, I sometimes made mention of that Law, or Theorem; but the public generally, twenty or only five years ago, were about as liable to meet such an allusion, as is the newspaper reader of to-day to encounter a reference to Mariotte's Law or Taylor's Theorem.* Of late, however, this term has been much more frequently used. To-day, the name of the London banker is in everybody's mouth. No monometallist thinks he can talk about the currency unless he quotes that highly meritorious financier. Without inquiring how far Sir Thomas Gresham is really entitled to be regarded as the discoverer, let us inquire: What is Gresham's Law?†

* In the index, comprising forty-four pages, in double column, and containing, probably, more than two thousand separate titles, which concludes Thorold Rogers's highly annotated edition of Adam Smith's *Wealth of Nations*, neither Sir Thomas Gresham nor his Law is mentioned. This would seem to indicate that Adam Smith, at least, was not aware that the founder of the Royal Exchange of London had also discovered a principle as fundamental in the monetary as is gravitation in the solar system; and, moreover, that Prof. Rogers did not feel it incumbent on him to supply Dr. Smith's omission. Penelope, Mithridates, and Hyder Ali are mentioned; but not Gresham. In my own large work on Money (1878), I find Gresham twice mentioned, once in connection with the fact that at the time of his death his wealth was found to be largely in rings, chains, and ornaments; the other, in connection with the law under consideration.

† I would refer the reader to an important article by Sir R. Giffen in the *British Economic Journal*, vol. i. pp. 305-6. After stating that the phrase "drives out," in the ordinary statement of

As most frequently stated, it is that bad money always drives out good money; or, preferably, that, if two kinds of money come into circulation in any community, the worse, or less valuable, will drive out the better, or more valuable. Thus stated, the theorem is not true. You might as well say that, if there be good carriages and poor carriages in any city, the poor carriages will not be used. If both the good carriages and the poor carriages, together, furnish no larger means of conveyance than the community have need of, people wishing transportation will hire the good carriages, so long as these are to be had; and then come down to the poor carriages, as better than walking. And that might be the case whether the one sort of carriages was poorer than the other by one per cent, or five, or fifty. If, however, the total number of carriages becomes in excess of the wants of the community, the worse will gradually fall out of use. They will one by one, as they break down, instead of

Gresham's Law, does not necessarily mean "causes the export of," the author goes on to say :

1. The underrated metal may be hoarded.
2. The underrated metal may be used in actual circulation, at a market ratio different from the legal ratio.
3. "Coins of the underrated metal may circulate as a species of token money, either because there has been a heavy seigniorage on them, or because they have become worn and deteriorated, so that they occupy the same place, and do the same work as token coinage, of a different metal than the standard, does in a monometallic system. This was notably the case in England with the silver coinage during the last century. Silver was underrated, and gold had become the standard; but a silver coinage of a very bad description remained, which was used exactly as the silver token-coinage is now used."

being sent to the blacksmith or wheelwright for repairs, be laid aside altogether, or sold to poorer communities.

In like manner, the proposition that has been stated regarding money must be extended to include the proviso that the sum of the two sorts of money is in excess of the wants of the trade of that community, as determined by Ricardo's Law of the territorial distribution of money. "It is a mistaken theory," Ricardo writes, in his Reply to Bosanquet, "to suppose that guineas of 5 dwt. 8 gr. cannot circulate with guineas of 5 dwt. or less. As they might be in such limited quantities that both the one and the other might actually pass in currency for a value equal to 5 dwt. 10 gr., there would be no temptation to withdraw either of them from circulation; there would be a real profit in retaining them." But if the sum of the two kinds of money in a country comes to be in excess of that country's distributive share of the world's money, the force referred to will begin to operate. Is it asked how this takes place? I answer, through the normal working of the principle of self-interest, which is all we have to go by in dealing with matters of finance and currency. There is here no question of patriotism, or philanthropy, or sentiment. These last have some room to operate in the warehouse and the sales-room; more, in the factory or works; more, still, on the land; but in the bank, none. All reasoning which assumes that, in the exchange of moneys, any principle can be substituted for that of individual self-interest must be futile and delusive.

The operation of self-interest in the matter under

consideration, is as follows: By the Ricardian principle, a country's (or a community's) distributive share of the world's money is that amount which will keep its prices substantially on a level (tariffs and cost of transportation in all its elements, time, freight charges, insurance, commissions, etc., being taken into account) with prices in the countries with which it trades. If, in any country, money comes to be in excess of the amount thus determined, prices will rise: that country will be a good country to sell to, because prices are high there; it will be a bad country to buy from, for the same reason. Imports thus increasing and exports thus diminishing, the balance of trade will turn against the country in question; and money will be exported to settle the account. This process will go on until equilibrium is reached, that is, until the money in the country is reduced to its distributive share of the general circulation. In such exportation of money, the better sort will be the one to go. Since it has, at home, no more power in exchange than the poorer sort, while it will receive a preference abroad, the normal operation of the principle of self-interest will cause its selection for that purpose. This does not mean that all of the better sort will necessarily be exported. Just so much will remain as is needed to make up the amount of money required for domestic circulation. The process described will be expedited by the melting of coin (assuming now that we are speaking of metal money) for use in the arts, whether industrial or decorative. A plump coin will have no more power in exchange than a thin one, but it will tell for more in the melting-pot. I have thus far

spoken as if the two sorts of money were light and heavy money of the same metal; but the principle applies with equal force to two sorts of money made of different metals.* If a country have coined money of gold and money of silver, at a mint-ratio which, considering the ratio the metals bear to each other elsewhere, disparages either gold or silver, it will be the metal undervalued at home which will go abroad, under the circumstances previously described; this also will be the metal to go into the melting-pot.

But we are dwelling too long on the theory of Money. Let us go on at once to the greatest event of a thousand years, which occurred just at the close of the fifteenth century, the economic, social, and political consequences of which the world is, every generation, coming more fully to understand and appreciate. We have seen the mighty mass of the precious metals, accumulated in the early ages, brought under Roman dominion and subjected at once to the operation of economic laws and to a riotous and wasteful alienation. We have seen that stock dwindle under wear and accidental loss until, at the beginning of the ninth century, it is estimated at but a tithe of its original bulk. We have seen the beginnings of causes operating to check the further destruction of the small store remaining, and even, later, to work some slight repair of the mischief done. We have seen, at last, the tide turn with force, bringing to the shores of Europe treasures of the

V * Sir Thomas Gresham, however, did not pursue the principle so far. His statement relates only to different qualities of coin of the same metal.

Orient which had escaped the devastation of ages, while a revival of the mining industry in some of its familiar seats, and the opening of fresh sources of supply, allowed the re-introduction of gold-coinage and furnished commerce the means of extending its operations wider and wider, as new arts and industries arose throughout Europe, especially in the Northern lands. In 1492, Columbus, sailing westward to seek a new route to the Indies and to Cathay, landed upon one of the islands of the American coast; and, on his fourth and last voyage, reached the mainland. The actual treasure which the great discoverer and his immediate successors brought back to Spain was comparatively small; but, with that singular power which the precious metals have always exercised over the thoughts and passions of men, it sufficed to inflame the imagination of the Old World and incite to unceasing enterprises. It is not necessary to recite that long and horrible story of rapacity and cruelty. In 1519 Cortez invaded Mexico; in 1521 the conquest of that country was complete. For the first time the Old World dreams of uncounted gold were realized. The treasures of the Montezumas were poured into the coffers of Spain; and one of the greatest economic movements of history began. A decade later, Pizarro invaded Peru; and the wealth of the Incas fell into the hands of the conquerors.

But it was not by plundering the storehouses of monarchs that the main fruits of the Spanish conquests were to be realized. Had this been all, Spain would have been repaid for her costly enterprises; there would have been a perceptible, a welcome increase in

the money-supply of the Old World; the daring adventurers would have been richly rewarded for all their toil and danger: a few great families would have been founded; but there would have been no world-wide revolution of industry, commerce, and finance. Nor was it in the form of gold, so passionately coveted, that the Spanish conquests were to make their chief contribution to the monetary system of the Old World.

At about the same time, in the same year it is said, namely, the year 1545, two important discoveries took place, the discovery, by the Mexican Medina, of the process of amalgamation as applied to the extraction of silver, and the discovery of the rich mines of Potosi, in Peru. This it was which changed the industrial face of Europe; redistributed the political power of mankind; hastened the downfall of ancient systems; and went far to create the modern world. In comparison with the floods of silver which poured from the newly opened mines, especially under the impulse given by the adoption of the amalgamation-process, in place of the simple and rude devices for extracting the metal from its ores employed by the ignorant natives, all the wealth gathered from the spoil of palaces was inconsiderable. Mr. Jacob estimates the average annual amount of gold and silver shipped from the New World, 1492 to 1521, at only £52,000. For twenty-five years, from the capture of Mexico to the discovery of Potosi, Humboldt estimates the annual yield, or plunder, at £630,000, giving a total for the period of £17,058,000, or nearly one-half the amount estimated, though, it must be said, very loosely, by Mr. Jacob, as being in the Western world in 806. The mines of

Potosi, alone, were before the close of the century to produce an amount transcending both the old stock and the new supplies.

It was not, according to the best authorities, until about 1560 or 1570 that the floods of the precious metals from America began very sensibly to affect prices throughout Western Europe. This procrastination of the effect naturally to have been anticipated from the incoming of such vast amounts of treasure was not due to any efforts to retain it on the part of Spain, into whose ports the new silver came and out of whose ports it passed to other countries. Bigoted and reactionary as were the ruling powers of that country, it was impossible, even in that day of unenlightened mercantilism, that Spain should regard it as for her national interest to retain the precious freight of her arriving galleons and make it royal treasure. There were, indeed, one or two attempts to readjust the ratio between gold and silver; but, in the main, the policy of the government was that of inaction and contentment. There was no purpose manifest to make these wonderful gifts of the New World minister to the growth of manufactures or provide the permanent endowment of great industries. Spain was satisfied at once to live high on this unearned bounty and to use the surplus for carrying on her schemes of conquest and colonization. Her fleets and armies, in both hemispheres, consumed no small part of the wealth thus lavishly placed at her disposal. Spain became, and for a century or two remained, the greatest military power of Europe; and, at the end of that career, sank into hopeless insignificance, having

neither arts nor arms to command influence among the nations.

The fact that the new silver did not earlier produce large effects upon general prices over Western Europe may be attributed to two causes. The first was that brought out so admirably by Prof. Cliffe Leslie and Prof. Cairnes, in their essays dealing with this theme, namely, the delay necessarily involved in the propagation of economic forces or economic shocks, from one object to another, from one class in the community to another, from one country to another, even from one city or town to another. It is thoroughly characteristic of the economists of the *à priori* school to assume that such propagation is instantaneous. If these writers ever admit the fact of "a period of readjustment," it is much as if it were a matter of changing tickets and baggage at a railway junction. Prices will readjust themselves to the new supply of money, be the same greater or smaller. Wages will readjust themselves to the new prices, be the same higher or lower. Industries will readjust themselves to the new prices and the new wages, with ease and celerity and without loss. Taxes will diffuse themselves with infallible equity, whatever the original subject of imposition. Readjustment is the shibboleth of this school. When I first began to write in political economy, a little more than twenty years ago, the economists of this school were still in authority; and we had treatises which, for example, assured the working classes that it did not in the least matter whether, at any given time, they received higher wages or lower wages or, possibly, any wages at all, because, whatever they might temporarily

lose in this way, though it would at first go to the employing class in extra profits, would inevitably be "restored to wages" in the immediate future, and so "the wrong would tend to right itself."

Nous avons changé tout cela. No man would now presume to talk in this way before an intelligent audience. It has come to be understood that social and industrial organization and structure are matters of immense importance; that society and industry cannot be reasoned upon as homogeneous and as in a state of continual flux. It is acknowledged that the process of readjustment is not easy, and that its period is not short; that economic shocks are propagated along the lines of least resistance; that burdens and taxes tend to rest upon those individuals and classes who are least able to throw them off upon others, and who are, therefore, least able to bear these, themselves; that economic injuries, once inflicted, tend to deepen and to become permanent.

It must be admitted that, if ever the old-fashioned style of reasoning was applicable to any subject-matter in economics, it was applicable to the influence of alterations in the money-supply upon prices. Economists, even the most reasonable, have been disposed to speak of this matter as if the effects were instantaneous, or were produced with scarcely sensible intervals. That the economic movement is more rapid in this field than in any other, is due partly to the nature of money, and partly to the fact that the trading classes, who are the chief agents in the work, are a selected body, active, alert, and well-informed. Yet Professors Cairnes and Cliffe Leslie have shown

that, in fact, both after the silver discoveries of America and after the gold discoveries of California and Australia, the distribution of the new money proceeded by distinct steps, with appreciable intervals, extending in the former case to considerable periods, periods measured, not by years, but by decades. As we shall have occasion to deal with this subject again, I will not dwell further upon it now; but will proceed to indicate the second reason for the fact that prices were so slow to respond to the rapidly increased supplies of money from the New World. It is, as I conceive the matter, this. When we say that an increase of the money-supply, "other things equal," raises prices, we are likely to bear in mind certain possible changes, as, e.g., in the habits of the people respecting the carrying and the use of money, in the introduction of credit-substitutes, etc.; but we are not apt to bear in mind that an increase of the money-supply may itself become the cause of an increased demand; possibly, under appropriate circumstances, of a largely increased demand. I believe that this occurred in the period we are contemplating; and that here is the explanation, not only of a retardation in the upward movement of prices, but also of the fact that, in the final result, prices did not rise proportionally to the increase of the money-supply, Prof. Cliffe Leslie reaching the conclusion that a general enhancement of prices not much exceeding 200 per cent followed an enhancement of the stock of the precious metals estimated at 470 per cent, and even more.* The world, down to that time, had been

* In his testimony before the Herschell Commission (Report

starved, monetarily, ever since the cessation of the money-supply; and the new silver was easily absorbed by the half-famished system. Moreover, as Prof. Cairnes has shown, the new silver and the rising prices set on foot a host of industrial and commercial enterprises, and wonderfully stimulated the productive activity of the whole world. Society, both industrial and political, took on a new face. Speculation and adventure awoke in every land. The discovery of new arts and of new resources in nature made a call upon the new money, which, with a larger production, prevented prices from rising to anything like the degree in which the money-supply had increased. Effects of a similar character, but more extensive in their range, followed the gold discoveries of California and Australia. Prices rose, but not to the extent to which the volume of money was increased. The rise of prices, itself, stimulated adventure and speculation, while the new gold furnished the necessary means.

The process by which a rising money-supply promotes commercial and industrial activity and enterprise will be more fully discussed at a later point*. Concerning the economic effects of the great metallic inflation of 1570 to 1640 or 1660, we may say that to this cause is attributed by sound and conservative writers the hastening decay of the obsolete feudal system; a decline in the hereditary revenues of monarchs which, in England at least, contributed greatly to promote

of 1887, No. 13, p. 2), Mr. Inglis-Palgrave estimates the increase of supply of the precious metals, 1492-1640, at 600 per cent and the increase of prices at only 200. ✓

* See pp. 151-4.

popular liberties: a redistribution of wealth which, while it worked deep injury to many deserving persons living on incomes derived from the past, yet contributed greatly to forward the material and intellectual progress of mankind; a rapid growth of burgher populations, prompt to resent the encroachments of priest, king, and noble; and a rising spirit of self-assertion on the part of the mechanic and artisan classes.

CHAPTER III.

BIMETALLISM IN ENGLAND, 1666 TO 1816.

THE first effects of the Mexican and South American discoveries were fully realized about the middle of the seventeenth century, say 1640 or 1660. Thereafter the new supplies sufficed to keep up the existing stock and to allow a moderate but continuous expansion. The period of tumultuous, overwhelming, revolutionary inflation had passed. We have spoken of the effect upon general prices of the increased supply of the precious metals, regarded as a whole. Let us now consider the effects produced upon the relations of the two metals themselves: upon the ratio between gold and silver. Throughout the early ages gold seems (according to the analysis of antique coins) to have ranged from 12, in silver, up to $12\frac{1}{2}$, 13, or even more.* Wide local differences were always possible

* Soetbeer, in his *Materialen*, refers to two standards found in the ruins of the palace of Khorsábád built by the Assyrian Sargina, or Sargon, in 708 B.C. The gold standard was $\frac{3}{8}$ as heavy as the silver and was 5 times as valuable, hence a ratio of $1:13\frac{221}{76}$. As Prof. Soetbeer remarks, the fixity of economic relations in Oriental civilization permits us to infer that something like this ratio had long existed. See U. S. Consular Report No. 87, pp. 485 ff.

There has been preserved a fragment from Agatharchidas,

under the conditions of life and trade then subsisting. It was entirely conceivable, as Mr. Jacob states, that gold might be worth in Asia no more than eight or nine times its weight in silver, while in Europe it was worth ten to thirteen times as much, without giving rise to any movements of the metals which should be rapid and large enough to correct the irregularity. As between European States, of course, no such wide differences could long exist, except possibly between the Christian and Mahometan parts of Spain.

As early as the sixth century, according to Mr. Hallam, the Jews, denied participation in ordinary pursuits, the victims of fierce but spasmodic persecution, insecure in their houses, their persons, and their property, had become known for their remarkable talent in conducting the operations of usury and in effecting the exchange of moneys. Every country in Europe soon became the field of their activity. With their inevitable acids and scales, for determining the purity and the weight of coins, they stood ever ready, even at great risks, to obtain a profit by the change of moneys.

which assigns to gold and silver an equal value in Arabia, at a certain time. Such a ratio, though most remarkable, was not actually impossible in a country which was in a high degree isolated, in those days of slow communication and insufficient information. If, indeed, the relation indicated really existed in Arabia, it is a reasonable conjecture that the result was due to the unparalleled scarcity of fuel which characterized that land, making the reduction of silver ores enormously expensive and difficult. Yet even in our own time has occurred a remarkable instance of a local ratio widely different from that prevailing generally. When, about the middle of this century, Japan was opened to commerce, gold was found rated to silver in the coinage at 4 : 1,

In the thirteenth century the Lombards and merchants from the south of France began to swarm over Western Europe, fully as eager and as keen to discover and to seize every possible opportunity for gain. The heavy coins were culled out for melting or for export, and the light coins were returned to the circulation; while if, in any country, either metal was undervalued in the coinage—and it almost invariably happened that one or the other was—the Jew or the Lombard was alert to send the coins of that metal to his correspondents in foreign cities. Under circumstances like these, wide differences could not long exist between neighboring countries without a considerable bullion movement, though both the quickness and the completeness of these operations have been greatly exaggerated.

At the discovery of America, gold stood to silver in the ratio of about 1 to 11. The effects of the first arrivals from the New World appear to have been slightly in favor of silver, for it will be remembered that the treasures seized by Cortez and Pizarro were chiefly of gold. But, as the mining industry of Mexico and Peru assumed importance, there was a vast preponderance of silver among the new supplies. Dr. Soetbeer estimates that between 1493 and 1520 (the date of the invasion of Mexico) the average yearly production of silver, by weight, was 8.1 to 1 of gold; that is, a greater value of gold than of silver was produced. During the period 1521 to 1544 (just before the discovery of Potosi) the average annual production of silver, by weight, was 12.6 to 1 of gold; that is, a slightly greater value of silver was produced. But

between 1545 and 1560 the proportion by weight rose to 36.6 to 1, carrying a value of three of silver to one of gold; while between 1561 and 1580 the proportion by weight rose to 43.7 to 1; and between 1581 and 1600, to 56.8 to 1, carrying a value of four of silver to one of gold. It was not until after 1660 that the proportion of silver to gold by weight fell below 40:1. It was not until after 1700 that it fell below 30:1, at which point the value of silver produced was, still, two to one of gold. During this long period of enormous silver-production, the ratio fell from about 11:1 to about 15:1. A given quantity of gold would, at the end of the period, purchase 36 per cent. more of silver than at the beginning. A given quantity of silver would purchase only 73.3 per cent. as much gold. Prof. Laughlin calls this a reduction in the value of silver, relatively to gold, of 36 per cent. I prefer to say that silver had fallen 26.7 per cent. and, conversely, that gold had risen 36 per cent.*

Why was it that such an enormously disproportionate production of silver, from 1545 to 1700, reduced the value of silver, relatively to gold, in no larger degree, especially since the pre-existing stocks of the two metals were so small? For the explanation of this result we are driven to conjecture; but there is one conjecture so entirely reasonable that we cannot hesitate to accept it. We run no risk in saying that

* History of Bimetallism in the United States, p. 44. Elsewhere Prof. Laughlin speaks of the increased production of gold since 1492 as "having lowered its value 300 or 400 per cent. relatively to other articles." Now, inasmuch as 100 per cent. is all there is of anything, it would appear that value cannot be lowered more than 100 per cent.

the chief reason why a twofold, a threefold, a fourfold production of silver, continued for generations, and that, upon pre-existing stocks inconsiderable in comparison with the new scale of supply, did not reduce the value of silver, in terms of gold, to a greater extent was found in the fact that silver was the metal which, in the subsisting conditions, the world of trade especially needed; and, consequently, a vast proportion of the increased demand attached itself to this metal. Gold had, indeed, three centuries before the discovery of Potosi, come again into service as money, after almost a millennium of disuse owing to its high cost and scant supply. It had, during the period we are contemplating, a real and important commercial function to perform in banking centres and in the marts of high commerce; but silver was still, in an overwhelming degree, the world's ordinary money. There is reason to suppose that the early coinages of the yellow metal, in some of the countries of Europe, began in a spirit of what, in these days, we should call advertisement. Silver was more suited to the vast majority of transactions at home, and also to follow the fleets of Europe, from continent to continent, in the expansion of international trade. At the time we are speaking of, gold was increasingly coming into use, but not at a rate to keep up with silver. The rapid growth of existing industries, the birth of new industries, and the vast expansion of trade required gold, indeed, but required silver far more extensively. Consequently, the new demand attached itself chiefly to the white metal, and thus prevented a considerable part of that fall in its value which

might have been anticipated from its disproportionate production.

Meanwhile a change of vast consequence to trade and production had taken place, in the transfer of the dominion of commerce and the seat of the world's exchanges from Southern to Northern Europe, from Venice to Antwerp. The wonderful career of the Queen of the Adriatic, in arts and arms, in statecraft and finance, was ended. To the great demands of the new age of manufactures and trade, her social and political system and the genius of her people were inadequate. In the phrase of our time, Venice could never have "handled the business" of the seventeenth and eighteenth centuries. Neither in patience and capacity for routine, nor in calm comprehension and breadth of view, still less in the moral courage and dauntless resolution required for the steady support and unfaltering pursuit of great and daring enterprises in peace as in war, could the sons of the Mediterranean compare with the men of the North, on whom the management of the world's finances and trade now devolved. Nor was it alone in close calculation, patient industry, and daring adventure that the northerner excelled. The hand of the Dutchman, the Englishman, the German, and the Swede was strong to defend, by land or by sea, his honest gains acquired in factory and counting-house.

Marvellous as were the developments of industry and trade, all greatly promoted and quickened by the floods of precious metals pouring in from the New World, the expansion of the Oriental trade which resulted, and which, we may believe, would have been

impossible, or would have been long delayed, but for the mighty monetary revolution through which the world was then passing,* forms the greatest feature of the century and a half which followed the conquest of Peru. And this remark introduces the second, though subordinate, consideration explanatory of the fact that silver between 1545 and 1700 did not fall more, relatively to gold. The new trade with the Orient took off no inconsiderable part of the new silver from the American mines; and thus diminished the natural effect of the astonishing production upon the value of that metal in comparison with gold. From time immemorial, India has been a gluttonous consumer of silver. Of the remarkable appetency for silver, not wholly or mainly for the purposes of currency, but for personal ornaments, for more or less meaningless hoards, and for religious uses, we shall have occasion to speak hereafter. The love of that metal in India has always been a fanaticism. For centuries and ages, streams of European and American silver have poured into India, to be lost as in a vast quicksand, never returned to general commerce, not even going into local circulation, but becoming the hoarded treasure of a starving people; the plating of roofs and ceilings and the material of images and sacred vessels of temples whose thousands of worshippers lived in abject misery.† So much for the question why the

* "It supplied and rendered possible the remarkable expansion of Oriental trade which forms the most striking commercial fact of the age that followed." (Prof. John E. Cairnes, *Essays in Political Economy*, p. 110.)

† For interesting remarks on these peculiar habits of the In-

almost miraculous production of silver, during the century and a half following the opening of the mines of Potosi did not work a greater change in the ratio. The effect produced, however, was sufficiently profound to disturb every mint in Europe, whose nations were all, as Mr. Shaw phrases it, "unconsciously bimetallic"; that is, were trying to keep money of both metals in circulation within their own borders, without having any formed theory regarding the causes which determine the commercial value of one metal in terms of the other, or regarding the power of government to influence that relation.

In reading of the complaints arising in every country, at one time or another, concerning the scarcity of this kind of money or of that, now of silver, and now of gold, we have to say the same things as we said with regard to the same subject prior to the discovery of America. Those complaints have to be listened to with a degree of incredulity arising from the fact that every nation in Europe, from statesman to peasant, was still completely under the domination of the theory which made money the prime object of production and of trade, an end in itself, and not a means to an end. Consequently, any outflow of gold or silver struck the mind of the man of the sixteenth and seventeenth centuries as a national loss, a sort of robbery, even though such exportation might be taking place as a step in the beneficent process of reducing that country's stock to the amount of its distributive share

dian, see Soetbeer's *Materialen*, U. S. Cons. Rep. No. 87, pp. 521 *et seq.*

of the world's money. In a word, the man of the earlier time believed that his own country could not have enough of coin; and he did not care whether other countries had any or not. The instructed man of to-day desires that the world generally and all other countries shall have a full circulation, while he would like for his own country, if that were possible, just a trifle less than its distributive share of that supply, so that it may be a good country to buy in and not a very good country to sell to. He desires to have prices everywhere well sustained, in order that trade may be good. He would like, if that were possible, to have prices in his own country permanently lower, though only a shade lower, than anywhere else, in order that his countrymen may get the largest share of that trade.

Another reason for distrusting, or at least largely discounting, complaints, in the period under consideration, as to the outflow of the precious metals is the same as that mentioned in connection with the period between the resumption of gold coinage at the middle of the thirteenth century and the great silver production at the middle of the sixteenth century, namely, the debasement and corruption of the coin. This cause, however, was operative in a reduced degree in the later epoch. The fact that the precious metals were now being mined in quantities sufficient, not only to keep up, but also rapidly to increase the stock, largely diminished the temptation to kings to become, as Prof. Rogers terms it, "smashers in their own mints and swindlers of their own people." Indeed, we cannot help making a sort of excuse for the

blackguardly conduct of princes and coining authorities in the later middle ages, when we consider the small amount of pure metal in existence. It is even possible that, if allowance be made for the readiness of poor human nature to deceive itself under the stress of self-interest, some of the worst offenders believed that they were doing their subjects a service by spreading out the mass of metal at their command into a greater body of coins. When one remembers how prone American communities at the West, in the early half of this century, were to look upon bankers who manufactured a hundred thousand dollars of notes upon a reserve of a thousand, and from that down to nothing, in specie, as public benefactors, and how prompt they were to resent every legislative attempt to impose stringent conditions, he may imagine John the Good, of France, after some peculiarly flagitious act of corrupting the coin, rubbing his hands in benevolent and patriotic fervor, and saying under his breath, "Ah, this will help trade!"

Again, no inconsiderable part of the inconvenience and disorder charged against the bimetallic system in the time of which we are speaking was occasioned by the failure to place fractional silver on a separate basis. This should have been done; could have been done just as easily under a bimetallic system as under monometallism; that it was not in all cases done is to be charged simply to ignorance. Whenever this oversight was remedied, some important part, perhaps the whole, of the public inconvenience complained of ceased. This point, about which there is universal agreement at the present time, was not understood at

all in the earlier time; and an almost inconceivable amount of confusion was created thereby. Even where the principle of issuing fractional money at a value below that in which the pieces nominally stand in relation to the principal coin is fully admitted, and treasury and mint officials do all in their power to maintain an adequate supply, it will often happen that "change" becomes scarce. In an age when the principle was not even conceived of, the outcry on this account would be far more frequent and noisy. Beyond doubt, we must attribute to this a large share of the complaints which have been accepted as proving the necessarily mischievous effects of a bimetallic system. In the French law of 1803 this very mistake was made; the smaller silver coins, the two-franc and the one-franc pieces, the pieces of 50 centimes and even those of 25* centimes (5 cents) were issued from the mint of the same fineness—namely, nine-tenths—as the five-franc pieces. These small coins were gathered up and exported whenever the natural movement of silver began, with the inevitable result of serious public inconvenience and great popular outcry. It was not until 1864 that the law was altered, so that all silver coins below five-franc pieces were coined at 835 fine, instead of 900, per 1000. In the same way, in the United States, from the beginning, two "halves" or four "quarters" or ten dimes or twenty half-dimes had been equal to one dollar, in the amount of pure metal contained. It was not until 1853 that the subsidiary silver coin was reduced

* 20 centimes after 1848.

in value, and it was provided that the minting of these coins should be at the instance of the treasury, and not of private holders of bullion.

Yet, in spite of all these reasons for distrusting complaints of the outflow of specie, in any time long past, we cannot question that monetary disturbances due to variations in the relative value of the metals were very great after the discovery of America. While the silver-price of gold was rising from 11 to 1 to 15 to 1, it must have been that, in every country where a mint-ratio existed favorable to silver in anything like the old degree, the undervalued gold would, more or less rapidly, in spite of public odium, of royal proclamations, and of penalties meted out in the most brutal spirit, seek a better market. The frantic and largely futile efforts of kings and parliaments, in that age, to affect the natural operation of the principle of self-interest in dealing with the coin, justify no inferences against the practicability of a true international bimetallism. Those efforts were individualistic, selfish, antagonistic, designed to benefit the nations making them at the expense of others. The very idea of a common, ecumenical interest in an ample, sufficient, stable currency for the whole world, in which every country should participate according to its own needs in the matter of circulation, and in which an excess of local supply was a matter, not to be rejoiced in, but to be deprecated, had never been conceived of. The results of the efforts of all nations to seize and hold the most they could of the precious metals, each pulling against the others, instead of all acting together for a common good, no more prove that

the united strength of the principal commercial powers could not set up and maintain a real and reasonably permanent bimetallism than the succession of usurpations, debaucheries, and assassinations in a certain period of the Roman Empire prove that a Christian nation cannot maintain a peaceful government from generation to generation under a dynasty respected and beloved.

For our present purposes, we may let pass, without detailed description, the period between the middle of the sixteenth and near the close of the seventeenth century. It was a matter of course that, with the prevailing policy of that age, every nation sought its own interest through means which involved, and were intended to involve, a loss or injury to others. It was a matter of course that the prevailing belief in the mercantile system dictated to each nation an effort to obtain and retain the precious metals at the expense of its neighbors. It was a matter of course that in such a struggle for "the coverlid of gold," to use a modern expression, the selfish, individualistic, antagonistic efforts of the nations produced general confusion and resulted in disappointment and failure. But near the close of the seventeenth century the turmoil which the rapid fluctuations in the relative value of gold and silver had created greatly subsided. Silver reached the position which it was to occupy for a long time to come. The ratio definitively changed from about 11:1 to about 15:1.

Indeed, the latter ratio came in rather nearer the middle than the end of the century, say 1660. Let us, then, fix our attention on this period. Let us, also,

direct our observation to a single nation, England, both because of the important rôle which she was destined later to perform in the development of the world's monetary system, and because, at this particular time, what was said and done in that "tight little isle" constitutes one of the most instructive chapters of monetary history. England under the Tudors and during the first half of the Stuart régime was no better and no worse, in the respects of stupidity and selfishness in dealing with the question of money, than were her allies or her enemies on the Continent. But before the close of the seventeenth century her monetary literature was to be enriched by the contributions of some of the most exalted minds known to fame; and her monetary legislation, if still imperfect in its theory and unsatisfactory in its results, was to show the influence of advanced ideas, and of sentiments largely emancipated from the narrowness and bigotry of the past ages. The statesmen and the philosophers of William III., Somers and Montague, Locke and Newton, constitute one of the noblest groups, taking character, intelligence, and aspiration together, to be found in human history. In 1666, an act known as the 18th of Charles II., chap. 5, opened the mint to coinage of both metals gratuitously, that is, without seigniorage charge. The weight of the guinea had been fixed by the indenture of 1663 at $2/89$ of a pound troy of gold; and the value at 20 shillings in silver. The long course of corruption and debasement of the coins of the realm, under the Tudors, and especially under Henry VIII. and the Protector Somerset,

was at an end; thereafter the monetary policy of England was scrupulously honest.

The act of 1666 cannot, at the time of its enactment or until the great Recoinage, be taken seriously as an effort at national bimetallism. First, as Lord Farrer states, it was the policy of the government to treat gold as subsidiary to silver,* and to leave the guinea to find its own value in silver money. The mint-rate was not acted on or enforced. Secondly, irrespective of the attitude of the government, the actual status of the coinage forbade anything like a fair trial of the system. Although debasement at the mint had ceased, the inheritance from preceding administrations and the unremitting labors of clippers and sweaters had reduced the body of coins in circulation to a condition of frightful disorder. The new guineas were worth more than the shillings at which they were rated in any shillings to be found afloat. Consequently, the guineas of gold and the worn and corrupted shillings of silver alike supplanted in the circulation all shillings which approached the true value. Gold came in from the countries across the Channel, and the full-weighted silver went out of the kingdom. The government shrank from recoinage at the cost of individual holders, as a measure of intolerable tyranny; the state of the Treasury would not allow recoinage at the cost of the State. The longer the remedy was postponed, the greater the evil grew. At last a condition was reached when the most terrible penalties of a barbarous age were almost without effect. Hanging,

* "The rating money, so to speak, was silver; the rated money was gold." (Horton's *The Silver Pound*, p. 73.)

even burning alive, scarcely checked the progress of the passion. A sort of madness fell upon the people. Men, women, and children joined in counterfeiting, clipping, and sweating the coin; and those who, from lack of handicraft or of mental initiative, took no part in the crime, sympathized with and cheered the criminals as they were drawn to the scaffold or the stake. Of the state of things in England resulting from the corruption of the coin, Macaulay, in his famous XXI. Chapter, says:

"In the autumn of 1695 it could hardly be said that the country possessed, for practical purposes, any measure of the value of commodities. It was a mere chance whether what was called a shilling was really tenpence, sixpence, or a groat. The results of some experiments which were tried at that time deserve to be mentioned.* The officers of the exchequer weighed fifty-seven thousand two hundred pounds of hammered money which had recently been paid in. The weight ought to have been above two hundred and twenty thousand ounces. It proved to be under one hundred and fourteen thousand ounces. Three eminent London goldsmiths were invited to send a hundred pounds each in current silver to be tried by the balance. Three hundred pounds ought to have weighed about twelve hundred ounces. The actual weight proved to be six hundred and twenty-four ounces. The same tests were applied in various parts of the kingdom. It was found that a hundred pounds, which should have weighed about four hundred ounces, did actually weigh at Bristol two hundred and forty ounces, at Cambridge two hundred and three, at Exeter one hundred and eighty, and at Oxford only one hundred and sixteen.

* "According to the accounts of Neale, then master and warden of the Mint, 4,695,303 dwt. 15 oz. 2 grs. of the clipped silver money produced only 790,860 lbs. 1 oz. 19 grs., implying a depreciation in weight alone of over 47.75 per cent." (Shaw's History of Currency, 224.)

"The evil was felt daily and hourly in almost every place and by almost every class, in the dairy and on the threshing-floor, by the anvil and by the loom, on the billows of the ocean and in the depths of the mine. Nothing could be purchased without a dispute. Over every counter there was wrangling from morning to night. The workman and his employer had a quarrel as regularly as the Saturday came round. On a fair-day or a market-day the clamors, the reproaches, the taunts, the curses, were incessant: and it was well if no booth was overturned and no head broken. No merchant would contract to deliver goods without making some stipulation about the quality of the coin in which he was to be paid. Even men of business were often bewildered by the confusion into which all pecuniary transactions were thrown. The simple and the careless were pillaged without mercy by extortioners whose demands grew even more rapidly than the money shrank."

At last, in 1696, the increasing urgency of the case united with the influence and authority of the statesmen and philosophers we have named to secure the general recoinage of silver; and that, both according to the ancient standard and at the public expense. The debate on these two points had been carried on with singular power. Never before, in England, had such men taken part in the discussion of monetary problems. Lowndes, Secretary of the Treasury, appeared as the champion of the scheme to put out the new coin at something like an average of the existing coins. He proposed to coin the pound of standard silver into 77 shillings, in place of 62, effecting, thus, a reduction of nearly one-quarter. He argued that the debasement had been long in progress; that prices had adapted themselves, painfully and inadequately, indeed, to the state of the coin; that contracts for goods, for rents, for interest, had been based on exist-

ing prices; and that an abrupt return to the former measure would work injustice to debtors and would occasion an unnecessary disturbance to production and trade. John Locke stood as the champion of "the ancient right standard." Of the writings of the great philosopher on this occasion, Macaulay remarks: "It may well be doubted whether in any of his writings, even in those ingenious and deeply meditated chapters on language which form, perhaps, the most valuable part of his *Essay on the Human Understanding*, the force of his mind appears more conspicuously." The highly honorable decision to maintain the standard introduced another question which has not been of equal philosophical interest, but which was of immense practical importance. Who should bear the loss? In the coinage of 1559, in Queen Elizabeth's time, the loss from abrasion, clipping, and sweating had been thrown upon the innocent actual holders of the coin; and government had even realized some small profit by the transaction. In the recoinage of King William, the Treasury assumed the cost, which was clearly just, since the money had been worn during public use. The expense of the great work was nearly three millions sterling. When it is remembered that this was one and a half times the ordinary revenue of the kingdom, the magnitude of the undertaking will be appreciated.

The debate over the recoinage of 1696, and over the rating of gold which followed, is of the deepest interest to the student of money. Just how that debate stands related to the issue of bimetallism or monometallism has been the theme of active discussion. Mr. Horton

in his learned treatise, "The Silver Pound," claims both Locke and Newton as bimetallists. Indeed, he styles the latter the father of modern bimetallism; although it is admitted that, during the debate over the coinage, he spoke rather as an officer of the mint than as an economist. Prof. Jevons, in his "Investigations in Currency and Finance," edited after his death by Prof. Foxwell, makes a strong case against this characterization, especially by introducing the pamphlet of John Conduitt, the husband of Sir Isaac's niece, which, he thinks, may fairly be regarded as representing the general views of the great scientist. The following is the passage which is relied upon to prove Newton a bimetallist:

"If Gold in England, or Silver in East India, could be brought down so low as to bear the same Proportion to one another in both Places, there would be here no greater Demand for Silver than for Gold to be exported to India; and if Gold were lowered only so as to have the same Proportion to the Silver Money in England which it hath to Silver in the rest of Europe, there would be no Temptation to export Silver rather than Gold to any other part of Europe. AND TO COMPASS THIS LAST there SEEMS NOTHING MORE REQUISITE THAN TO TAKE OFF ABOUT 10D. OR 12D. FROM THE GUINEA, so that Gold may bear the same Proportion to the Silver Money in *England* which it ought to do by the *Course of Trade and Exchange in Europe*."

These words occur in the course of an argument for the re-rating of the metals; and they seem fairly to bear the construction given to them. Locke discussed the economic elements of the case freely, and has left more material for controversy. The sentence which the monometallists quote on their side is one which

occurs in his Report of 1698, on the re-rating of gold. It is as follows:

"It being impossible that more than one Metal should be the true Measure of Commerce; and the world by common Consent and Convenience, having settled that Measure in Silver; Gold as well as other Metals, is to be looked upon as a Commodity, which varying in its Price as other Commodities do, its Value will always be changeable; and the fixing of its value in any Country; so that it cannot be readily accommodated to the course it has in other neighbouring Countries, will be always prejudicial to the Country which does it."

This remark has often been quoted as showing that Locke was a silver-monometallist. But Mr. Horton offers considerations of great force in opposition to this view. His argument, in brief, is this: First, the monetary system of England at that time was bimetallic, not, indeed, in the modern form, but with silver as the standard, and gold rated to it by law or proclamation. Of this Mr. Horton says:

"The scheme is precisely what I should advocate, under conditions such as those which obtained two centuries ago. It appears to me, in a word, the plain common-sense of what I may call a Local-National Bimetallic System. The Unit being held by the heavier, the more abundant, and the steadier metal, and full provision made for duly holding the other metal in harness as Money, at par with the Unit, the system was, in my view, arranged with full adaptation to the international elements of the problem, as they then stood. I do not hesitate to affirm that it is distinctly the analogue, for that day, of the Union for Free Coinage of Silver and Gold, the adoption of which was put upon the order of the day before Christendom by the Monetary Conference of 1878." (The Silver Pound, p. III.)

That system, Mr. Horton declares, was not a visionary one. "France," he says, "actually enjoyed its

Double Standard, in the sense of a concurrent circulation of the two metals, throughout the greater part of the eighteenth century;" and for proof of this he refers to his appendix, to the Report of the International Monetary Conference of 1878. That system Locke sustained, supported, approved;* and he was, thus, a bimetallist of that time—a bimetallist, so far as the theory of bimetallism had then developed.

Secondly, it is Mr. Horton's view that the perversion of Locke's views, as he esteems it, grew "out of the disposition to apply the controversial terms of to-day to a state of things quite remote and disparate from that which has produced them." (*The Silver Pound*, p. 90.)

Thirdly, Mr. Horton explains any seeming incompatibility between Locke's expressions, as quoted, and a cordial acceptance of bimetallism, as then understood, by the fact that he was in the situation of an advocate, strenuously opposing the debasement of the coinage and urging the maintenance of the Ancient Right Standard. "An effort was on foot, and near success, to engage the statesmen of the Whig Revolution in the career of debasement of Money which had been a blot upon earlier ages and upon former reigns. Against this Locke set his face; and any little overstatement he may have made is surely rather a credit to his temper than a reproach to his reason." (*The Silver Pound*, pp. 79-82.)

Finally, Mr. Horton, very effectively, as it appears

* Except in the writings of the earliest of the three periods into which Mr. Horton divides Locke's public activity. (*The Silver Pound*, p. 76.)

to me, turns the expression in controversy against those who have given it a monometallist bearing, asserting that Locke's objection to fixing the value of gold in any country, "so that it cannot be readily accommodated to the course it has in other neighboring countries," is an argument, not for leaving gold to be mere merchandise, taking its place in contracts according to the will of the individual bargainers at the time; but for periodically fixing the value of gold relatively to silver, by law or proclamation, from time to time, according to the general course of the metals, in order that both may at once be money, passing in circulation at a ratio. This view, which certainly accords better with the text than the other construction given to it, is corroborated by the fact that the language cited occurs in a report in which Locke urges the reduction of the guinea to 21 shillings 6 pence. It is the fixing of the ratio so that it cannot be accommodated to the course the two metals have elsewhere, not the fixing of the ratio at all, to which Locke makes objection. It is, however, of much less consequence whether we believe that Newton and Locke were bimetallists in their day, than whether we believe they would be bimetallists in an age when internationalism has made great progress, alike in theory and in practice; when leagues and conventions for the world-wide performance of certain functions, the world-wide maintenance of certain conditions requiring to be defended by a general agreement, the world-wide enforcement of certain rights and property interests, have made that idea familiar to all civilized peoples; and, especially, when the vicious views of

money which once prevailed in all countries have been supplanted by universally accepted principles of finance, in which the general monetary system of the commercial world is recognized as of scarcely less importance to each nation, in turn, than is the integrity of its own circulation. As the question whether Newton and Locke would be bimetallists in our time is one regarding which all men have a natural and inalienable right to their private opinions, I shall not pursue the subject further.

The recoinage of silver, in 1696, removed what had been the chief obstacle to a fair trial of national bimetallism in England, namely, the general corruption of the circulating coin. But another cause of mischief was permitted to operate, though perfectly remediable, which sufficed to prevent the success of the system. Gold was distinctly overvalued in the circulation. During the time of the greatest disorder of the coin, the guinea had exchanged for as high as thirty shillings, such as shillings then were. In the year of the recoinage, the maximum silver price of the guinea was reduced by statute to 26 shillings; and this was later in the same year brought down to 22 shillings. But still gold remained overvalued. The mint regulations of Holland and France were less favorable to gold, more favorable to silver. Consequently, those countries drew away England's fine, brand-new silver coin. As early as 1698, only two years after the recoinage, Locke, in a report * which was a few years ago dis-

* Signed by three other members of the Council of Trade and Plantations, besides himself, (Horton, *The Silver Pound*, p. 77.)

covered by Mr. Horton's researches, proposed that the guinea should be reduced to 21 shillings 6d. "at least"; with the additional suggestion that "if, contrary to our expectation, this abatement should prove too small, guineas may by the same easy means be lowered yet further, according as may be found expedient." Such a reduction had been ordered by the Lords Commissioners of the Treasury in 1697; but the order was rescinded. The recommendation of Locke and his associates, in 1698, was immediately given effect; and the guinea was definitively reduced to 21 shillings 6d.; but even this still left gold overrated, as compared with that metal in the countries across the Channel; and gold continued to flow into the Kingdom, in part to reinforce the circulation, in part to replace the silver coin. It was, at any time, within the power of the Government to reduce the force of this movement or to put a stop to it altogether; but the authorities were not brought to the point of action until the famous report of Newton in 1717. Newton had for years been an advocate of the reduction of the guinea. In three several reports, in 1701 and 1702, he had recommended this course. In his report of 1717 occurs a paragraph which strikingly illustrates the proposition advanced in the last chapter, regarding the time taken to effect changes in the currency, which the monometallist writers so commonly treat of as practically instantaneous. He says: "People are already backward to give Silver for Gold, and will in a little time refuse to make payment in Silver without a Premium." Here was a case where gold had been overrated for many years, indeed ever since the re-

coinage of 1696. At the very moment of this report Newton speaks of the profit of sending away silver rather than gold as "almost four per cent"; and yet, through all this time, silver had continued to circulate and to be given for gold.

The report of 1717* is that from which we have already quoted Newton's words regarding the policy of adapting the rating of gold to meet the facts of foreign markets. So strong were the arguments then advanced that the guinea was, by proclamation of Dec. 22, 1717, reduced to 21 shillings, while "broad pieces" were brought down to 25 and 23 shillings. The proclamation continues in these words: "At which rates and values we do hereby declare the said respective pieces of coined gold to be current." It was too late. For twenty years England had allowed herself to be drained of her silver, through the over-rating of gold; and when the remedy so often recommended was at last applied, not only was her power to influence the value of gold, by offering silver in its stead, largely exhausted; but gold had, itself, through independent causes, already sunk to a still lower level in value so that the reduction which alone could have checked the drain of silver, would have been to something less than 21 shillings. But the rulers of England were timid; and her merchants, who influenced their action, were short-sighted. Moreover, it should, in

* "It was not till the order of 1717, issued on the advice of Sir Isaac Newton, that a minimum as well as a maximum value was placed on it [silver] and that the guinea was actually rated at a fixed amount." (Lord Farrer, *Gold Standard Defence Association*: Tract No. 8, p. 9.)

fairness, be said that it was natural that gold should come to take a larger and still larger place in the circulation of the Kingdom. When the Act of 1666 was passed, the amount of gold in the hands of men was small. From that date onward, the annual production rapidly increased, until it reached double its former amount. Unquestionably, trade was all the time attaining conditions which made a larger use of gold convenient and desirable; and unquestionably, also, England was the country, of all the world, whose business justified the largest use of it. Much of the new supplies doubtless had the double effect to re-enforce the aggregate money of the kingdom and to effect a beneficial change in the proportion of the two constituents. Yet gold would have come into England to the full extent which trade required, had the guinea been accurately rated; while, with a truer rating, the silver would not have gone out, as it unquestionably did to an injurious degree. "There was," says Lord Farrer, "throughout the last century and down to 1816, a great dearth of silver coin in this country."

Soon a new cause appeared to facilitate the progress of England towards a predominant gold circulation. The mines of Brazil were discovered about the middle of the eighteenth century, still further reducing the value of that metal in relation to silver, and still further promoting, in the absence of a new rating, the outflow of silver. A little later, the state of the gold coin became the subject of anxious consideration, as that of the silver coin had been in the years preceding 1696. In 1774, a general recoinage of gold took

place; and at the same time an act was passed providing that silver should be legal tender for sums above £25, not by "tale," or count, but according to its actual fine-metal contents. Although silver coin still continued to be legal tender by weight, some writers have been disposed to treat this act as practically a measure for the demonetization of that metal. Lord Farrer, however, observes: "This act, important as it has been considered in a theoretical point of view, was probably intended, not so much to depose silver from its rank as the standard metal, as to obviate the defects of the silver coins." Generations of picking and culling, for the exportation or smelting of the heavier pieces, could not have failed to leave the circulating mass in a thoroughly bad condition,* making it unfit for large payments. The act referred to was temporary, and the legal status of silver was restored.

What would have happened in England, regarding the relations of silver and gold, had not the progress of Napoleon's army on the Continent, and the threatened destruction of its world-wide trade, drawn that country into the vortex of inconvertible paper, can only be conjectured. It is not unreasonable to say that, but for twenty years' experience of the suspension of specie payments, the demonetization of silver might not have occurred. For just at this time gold was rising in value. At the beginning of the century, it had been worth 15.27 to 1 of silver; but fell con-

* An examination made some years later, in 1787, showed that the half-crowns were over 9 per cent. below weight, shillings over 24 per cent., and sixpences over 38 per cent. (Shaw, *History of Currency*, p. 237.)

tinuously from decade to decade, till near the close of the century, when it was worth only 14.64 to 1. This course, as we have seen, tended strongly to strip England of her silver, at the legal rating; and to substitute gold in her circulation. But, about 1780, the tide turned; gold began to rise. That advance went on until it reached an average, for the first decade of the present century, of 15.61 to 1 of silver, which was far above the legal ratio, viz., 15.2, counting the guinea as 21 shillings. Had England during all this period been in the actual enjoyment of metallic money of both silver and gold, it would have been, to speak mildly, much harder for Lord Liverpool and the elder Peel to carry the demonetization of silver. But the country, by the Restriction Act of 1797, came under the rule of inconvertible paper money; and it was during the continuance of that régime that the act was passed, in 1816, which made gold coin the sole legal tender for large amounts throughout the Kingdom, reducing silver to the rank of subsidiary or token money, to be coined only at the instance of the government. The "sovereign" was coined at 20 shillings, replacing the guinea of 21 shillings; and thus one of the greatest events of monetary history came about. To that result, the Letter of the first Lord Liverpool, On the Coins of the Realm, greatly contributed. We shall have occasion to speak hereafter of the consequences to England and the world of the act of 1816. At present, I offer a few brief observations.

1st. The monometallist contention that the single gold standard was reached through the operation of perfectly natural causes, Parliament only registering

the result to which commercial forces had brought the country, does not seem to be sustained. Had the Silver Pound remained the sole standard through the period we have been considering, and gold, coined but without an official value, been left, free of all executive authority, to find its place and its price, the final substitution of that metal, as the chief and nearly the sole money in circulation, might have substantiated such a theory. But the fact that, by the theory of the act of 1666, gold and silver were both legal tender; and, whatever the actual facts of their use between that date and 1717, both were, after the latter year, legal tender at a ratio fixed by the Crown, this alone makes it impossible to assume that commercial causes, only, operated to produce the result finally reached. Add to this the indisputable fact that, during the whole of this period, silver was underrated, and largely underrated, in the coinage, and we have a competent cause for the whole effect. I have frankly expressed the opinion that, under a rating which fairly represented the outside market ratio, gold would have come increasingly into use, in England. But this would have been mainly, perhaps solely, in the way of a re-enforcement of the aggregate circulation. It was the law, and the law alone, which drove silver out.

2d. The assumption that England had by this time become so rich, its scale of prices and wages so high, that gold alone would answer its uses for principal money—silver being needed only for purposes of small change, is absolutely unjustifiable, in view of what we know about the state of things. England was by no

means too grand and rich to continue to use silver. I cannot show the absurdity of the argument to the contrary better than by quoting a paragraph from Prof. John E. Cairnes. It is true that the remark relates to a later period of history; but that fact only serves to make the case stronger. In his "Character and Logical Method of Political Economy," p. 141, note, Prof. Cairnes says:

"We are told that silver goes to Asia, while gold remains in Europe, because 'Europe is in a state of civilization which makes gold the most convenient metal for its coin, while Asia is in a state of civilization which makes silver the most convenient metal for its coin.' Now it is certain that no important change has taken place in the relative civilization of Europe and Asia, and I may add, of America, during the last ten years. If the principle, then, were a good one, silver would have been displaced in Europe long ago; and inasmuch as 'the civilization' of America has been equally in advance of Oriental nations, silver would never have been the chief currency there. But silver has been the principal currency in both France and America until recently; and might be so still, in spite of their 'civilization,' *were their mint-regulations framed with a view of retaining it.*"

3d. The assertion that England owes her prosperity to the single gold standard is weak and superficial. I would not deny that England may have derived some selfish or particular gain from acting as broker for the world in the exchange of moneys arising out of the fluctuations of gold and silver; but all this could, at the best, be but a very small part of what has made England rich and powerful. The foundations of her commercial and industrial greatness were laid while she was yet under the so-called

double standard. Again, England from 1816 to 1873 enjoyed the advantages of French Bimetallism, in common with all the world.* Throughout, her growth was largely conditioned upon the stability of value which, as we shall see, was given to the world of commerce by the maintenance of that system on the Continent.

These are the least effective answers to the monometallist claim. The chief answer is that a sufficient cause of England's growth and industrial power is to be found elsewhere. Can I do better than quote from Mr. Goschen's splendid work, "The Foreign Exchanges," where he asks why London is the centre of the world's exchange? "A partial cause might be found in the credit granted by London bankers, and also in the greater credit of London houses, extending to all quarters of the world. But this can only be called a secondary reason; and appears, on closer examination, to be itself the result of the primary cause that makes England the great banking centre of the world. That primary cause is to be found in *the stupendous and never-ceasing exports of England.*" And it is fair to add that this greatness of exportation, this domination of the world's markets, came to England, first, because of the industrial quality of her people; and secondly, because it was in England that the great inventions of the Industrial Revolution took

V * "Sir W. Harcourt has recently said England owes her wealth to her stable standard. But he has forgotten to add that up to 1873, i.e., as long as the French mints were open, England owed the stability of her standard not to herself, but to the Latin Union." (Dr. E. Suess.)

V place. The remark of Mr. Disraeli (Lord Beaconsfield) at Glasgow, in 1873, is in the same vein: "It is the greatest delusion in the world to attribute the commercial preponderance and prosperity of England to our having a gold standard."

CHAPTER IV.

FRENCH AND AMERICAN BIMETALLISM TO 1851.

LET us now briefly consider French and American bimetallism down to the gold discoveries of California and Australia.

The experience of France with silver and gold, rated to each other in the currency, had been much the same as that of England, during the greater part of the eighteenth century, except that France, by giving a lower value to gold, had drawn to herself much of the silver coin which England, to her great inconvenience, was constantly losing. The fact that the French ratio was much nearer the value of the metals in the bullion market enabled her to keep both in concurrent circulation to a very considerable extent. I have quoted Sir Isaac Newton's words, in his report of 1717, to show that, in spite of a wide divergence from the market value, silver had continued, through a long period of time, to be given for gold, in England. It was only at the close of that period that the distinguished philosopher who was Master of the Mint was obliged to contemplate it as imminent that the people, who were "already backward to give silver for gold," would "in a little time refuse to make payment in silver, except at a premium." France, during

✓ the greater part of the century, actually had both metals in circulation, contrary to the familiar monometallist assertion. In his report of 1785, the Minister Calonne says: "In 1726 the legal ratio was fixed in France at 14 marks 5 oz. of silver to a mark of gold; and that which proves with how much sagacity this point was seized, is the fact that during a long course of years France retained in her circulating medium a sufficient proportion of each metal. Nevertheless, her gold gradually became less common; and for years this scarcity has rapidly increased." It was in view of this fast-developing condition, as well as with reference to the state of her circulating coin, that the Minister undertook a general recoinage of gold and, therewith, a change of the rating which had remained unaltered for 60 years. The measure was carried out in 1785. As the new ratio taken was $15\frac{1}{2}$ to 1, against the old ratio of $14\frac{5}{8}$, and as the market rate was stated by Calonne to be at the time about 15.08 to 15.12, the recoinage brought a profit both to the treasury and to the holders of the old louis d'or, so far as these were of full weight. It will be observed that free coinage of gold at this ratio was not established: the old gold was recoined at the new valuation.

This is the first appearance of the famous ratio $15\frac{1}{2}$ to 1. The marked advance of the rating of gold was of an heroic nature. One may conjecture that Calonne was influenced by the determination to bring gold into the kingdom rapidly, and by a belief that natural and commercial causes were operating to give that metal a higher value, as indeed speedily proved to be the case. The actual effects of the measure of 1785 upon

the market value of the metals were of course greatly diminished, and also obscured to view, through the speedy occurrence of the Revolution. The acts of violence and confiscation which marked the downfall of royal and priestly rule wrought a disturbance amounting almost to anarchy in trade; while the crazy issues of paper money, in vast volumes, which rose and swelled as the value of the *assignats* and *mandats* declined, reduced production almost to the limits of absolute physical necessities. The economic history of this period, which has been admirably treated by President White, is of great interest to the student of money, in general, but of little to the student of bimetallism.

At last France emerged from anarchy, and came under the control of a ruler no less masterful in civil than in military affairs. In all that wonderful career nothing more conclusively shows the greatness of Napoleon's mind than that, through twenty years of war, at times against half Europe, he never once allowed a resort to the delusive expedient of inconvertible paper money. Under the influence of the First Consul, the Minister Gaudin instituted and carried through the Council of State a scheme by which the silver franc was made the monetary unit* of the Republic; and gold was to be coined, in 20- and 40-franc pieces, at the ratio of $15\frac{1}{2}$ to 1. Free (though not gratuitous) coinage† of both metals, at the legal

* See footnote to page 126.

† Coinage is said to be free when any individual holder of bullion has the right to bring it to the mint, in any quantity, and have it coined, whether with or without "seigniorage." Coinage

ratio, was instituted. The law of the year 1803 (styled in the new French chronology the year XI) was, in its general character, much like others which after the reintroduction of gold coinage in the thirteenth century had sought to give this or that country a concurrent circulation of the two metals. Yet it was not only to become and remain, for the two generations succeeding, a power for good which can hardly be estimated, but it was to give rise to a monetary scheme of still wider application which should command the support of hosts of economists, financiers, and statesmen of the highest rank, through the greatest monetary controversy of the world's history. No purpose of doing aught for the benefit of mankind, in general, entered the minds of those who took part in this legislation. In its object and motive the measure was just as individualistic and selfish as any that had preceded. The reasons why the act of the year XI was to exert an influence so powerful and extensive were two. First, the policy was to be persisted in. As originally presented, the plans of Gaudin contained an explicit recognition of the probability that the rating of gold to silver might require to be altered from time to time; but this was stricken out in the course of discussion; and the ratio of $15\frac{1}{2}$ to 1 was adopted without any suggestion of a future change. Courage is often a large part of wisdom. The intention thus announced was, as we shall see, maintained and made good against a tempest of monetary disturb-

is said to be gratuitous when the full amount of bullion is put into the coin, the mint making no charge for the cost of the operation.

ances which might well have appalled the bravest. The second reason for the great effect exerted by the French law was, that that country employed a large quantity of metallic money. The habits of the people in regard to the keeping and carrying of money involved the use of the precious metals to a really enormous extent. In the language of Mr. Baring, "the circulation was saturated with specie." It was this vast endowment which enabled France so long to carry on that great function of the exchange of the metals, one for the other, which was to save the commercial world from more than one terrific crisis. As the modern ship is long enough to cover the interval between two or three waves, the French reserve of metal money was large enough to outlast fluctuations in the production of the precious metals which would have completely drained away the stock of the appreciating metal from almost any other country of Europe.

The virtue of the bimetallic law was destined to be severely tried from the start, inasmuch as important changes, both in the natural conditions affecting supply, and in the commercial or legal conditions affecting demand, began to take place almost with the promulgation of the law itself. Let us first speak of the changes affecting supply. These were of a nature to raise silver relatively to gold. At the beginning of the century, the production of silver, in value, was largely in excess. But the tide soon turned. Between 1801 and 1810 the proportion was 3.226 to 1; between 1811 and 1820 it was 3.048 to 1; between 1821 and 1830 it sank to 2.055 to 1; between 1831

and 1840 to 1.865 to 1; between 1841 and 1850 it was .899 to 1. It is true that the stocks of both silver and gold to be affected were now so large that such a disproportion in the current yield would naturally cause a relatively smaller effect than during the first century after the opening of the mines of Potosi; yet the influence of such disproportion could not fail to be considerable when the movement was persisted in for a term of years.

The chief explanation of the falling off of silver production, relatively to that of gold, was found in the Mexican and South American revolutions, rebellions, and insurrections which followed the invasion of Spain by Napoleon. The disastrous effects of civil disturbances upon the mining industry have already been referred to. Those effects, at their worst, were experienced in the unfortunate countries which had thrown off the yoke of Spain without acquiring the instincts of self-government and respect for law. Mine after mine was closed by this cause; while nearly every mining district suffered to a great extent. Shortly after Spanish America had thus fallen off in its production, which was mainly of silver, a new cause entered to increase the volume of gold. The Russian mines in the Ural Mountains, which had been worked before the Christian era, again became productive. Chevalier states their yield for 1830 at £720,000. A little later the auriferous sands of Siberia were discovered.

These concurring causes affecting supply, namely, the decline of silver production, shortly after the enactment of the French law, and the increase, about

1830, of the volume of gold production, might have been expected to cause a considerable alteration in the market ratio between the metals, in the direction of making gold cheaper and silver dearer. On the other hand, forces were operating during this period which tended to produce effects in an opposite direction. Most conspicuous was the resumption of specie payments in England, under the law of 1819, by which the paper money of the realm was brought back to a condition of soundness, after twenty years of "restriction."* Prof. Hoffman states the English demand for gold for redemption purposes at more than four times the annual production of all the known gold-mines of the world at the time of their fullest productiveness. Moreover, we cannot feel that there is any danger of our being mistaken in thinking that the increasing wealth of the world and the growing disposition to consume wealth luxuriously, were steadily causing the balance to incline a little more, generation by generation, to the side of a relatively larger demand for gold than for silver, for use both as money and in the decorative arts. I have previously expressed the opinion that this tendency has been greatly overestimated, for controversial purposes; but it would not be candid to deny that the tendency existed or refuse to give it a place in our consideration of the subject.

It would not be worth while to spend much time over the course of things in France during the first two decades of the century, even were we in possession of the facts, for the reason that unceasing wars, down

* That is, practically, suspension of specie payments.

to 1815, created abnormal conditions, not only as respected finance but also as respected trade and production, which would render statistics of export or import of little significance. As a matter of fact, precise information regarding the bullion movement began to be available only in 1822. From the moment when we first get a statistical view of this movement, we find it steady and constant in the direction of increasing the proportion of the silver in the circulation of France. I have said that, during the period we are now considering, the value of gold in terms of silver in England and on the Continent, most of the time, stood above that of the ratio of the French mint. The average of the quotations, by ten-year periods, are 15.61 for the period 1801 to 1810; 15.51 for 1811 to 1820; 15.80 for 1821 to 1830; 15.75 for 1831 to 1840; 15.83 for 1841 to 1850. These figures exhibit a narrow range for the fluctuations of the precious metals, when the extent and force of the causes, natural and commercial, operating to produce divergence, are considered. It would certainly seem that some influence was at work to counteract the causes which operated to push the metals apart, though it must be said that the elements in the case were too numerous and powerful, and are too little known to us or subject to our measurement, to enable us to reason with confidence upon the facts of the situation. We do not know the extent of the stocks of gold and silver in existence when the changes noted took place in the volume of current production; nor can we even pretend to estimate the increasing demand for gold for use as money or in the arts. But

we are not driven to calculate nicely the degree of the conflicting forces. We need not be careful to answer in this matter. "Infallible inference" is on the side of those who hold that this effect of the comparative stability in the value of the precious metals, during this period, was, in some large measure, the work of the French law.

There are many well-meaning persons on whom the suggestion that law can affect values acts like the proverbial red rag on a certain pugnacious and aggressive animal. They become simply irrational at the word. "The impotence of law to affect values" is their favorite phrase. The terms, folly, idiocy, lunacy, make up the rising scale of their invective against all who put law and value into any possible relation of cause and effect. The notion that law cannot influence value is not unnaturally derived from certain conspicuous instances where laws have attempted squarely to cross the economic impulses of mankind and to thwart the instinct of self-interest at its maximum of activity and intensity, and have failed. During the French Revolution the government put out paper, by tens of thousands of millions of francs, which it declared should be in all respects the equivalent of coined money of the same denominations; yet the paper fell rapidly in value till it sank out of sight. The government issued decrees which fixed the prices of commodities in terms of paper money, but to no purpose. The export of specie was made a crime; yet specie flowed out of the country. In our own revolution, the Continental Congress went through the process of issuing paper in enormous amounts, fixing

the prices of commodities, forbidding the "forestalling" or "engrossing" of the market; but the normal operation of the principle of individual self-interest continually thwarted the intentions of the law-makers. Instances like the foregoing gave rise to the proposition quoted, viz., that law is impotent to affect values. Yet there are numberless instances where laws have affected values;* and there is not a civilized country in the world at present where law is not profoundly affecting, if not controlling, the value of some commodity. Laws often affect values when they were not intended to do so. Indeed, it is often difficult to prevent laws† from affecting values, when they are passed for a very different purpose, even when the result of affecting values has been carefully sought to be avoided.

The truth of the matter is, law cannot affect values, much less control them, except as *it sets some economic force in motion*. Whenever law sets an economic force in motion, it can and will and must affect values. The degree in which values shall be affected will depend upon the extent of the economic forces thus put into operation. Had it been said that "law cannot create value," that is, add to the sum of wealth, much might be urged in defence of this proposition; but to say that law cannot affect values, that is, change the relative values of different things, is preposterous. As

* See the discussion of this subject with relation to the export or melting of coin on pp. 32.37, *ante*.

† E.g. treaties of war, of peace, or of commerce, currency measures, acts regulating the transfer and registration of property, etc.

regards bimetallism, then, the question simply is, Can government set in motion any economic force which will affect the relative values of gold and silver? I answer yes, incontestably; and that force is one of enormous scope and reach. By declaring the two metals indifferently legal tender in the payment of debts, at a certain ratio, it at once and powerfully influences the demand for one and the other of the two metals. This was what France did by the law of 1803. That law gave an ounce of gold, in coined money, precisely the same power to pay debts as that possessed by $15\frac{1}{2}$ ounces of silver, in coined money. The operation of this principle was simple, instantaneous, automatic. If, at any time, either of the two metals became less valuable than by the legal ratio, every debtor instinctively sought coin of that metal, with which to meet his obligations, in preference to coin of the other metal. This increased the demand for the cheaper metal; and, by that very act, decreased the demand for the metal which was becoming dearer in the market. Now, to increase demand is, other things equal, to raise price; while to decrease demand is, other things equal, to lower price. Thus, through its power to regulate the payment of indebtedness, the government practically threw its weight upon that one of the two metals which tended to rise, and kept it down. No one wanted the dearer metal to pay debts with; every one wanted the cheaper metal for that purpose; and, since the volume of indebtedness coming due every day in any commercial country is very large, the force thus invoked was sufficient to produce an enormous economic effect. It was not at all

because the French government declared that one part of gold should be worth $15\frac{1}{2}$ parts of silver, that this result took place; but because the French government set in motion competent economic forces to that end.*

The principle which has been stated is absolutely incontrovertible. One has to go as far away from the centres of educated financial opinion as Boston, New York, and Chicago, to find men of position who are capable of denying it. I shall, at a later date, quote, in full recognition, not only of the theoretical correctness of this principle, but of its practical applicability to the case under consideration, Chevalier, in his day the leading monometallist of France; the monometallist Lexis, the first economic statistician of Germany, if not of the world; the monometallists Cairnes, Jevons, and Bagehot, the three greatest economists of England who survived John Stuart Mill; and Sir Robert Giffen and Lord Farrer, to-day the chief champions of monometallism. Every one of the men quoted, and I might add a score of eminent names, has fully and ungrudgingly conceded the principle stated. The concurrence of general opinion on this subject is overwhelming. Not a person worth quoting can be cited to the contrary effect.

* "So long as the provisions of the year XI on this point are allowed to remain, and so long as France shall continue to offer great masses of silver, the merchant will find it easy to barter his gold in that country for the other metal, on terms which deviate little from those prescribed in the year XI. *It follows, also, that while this state of things lasts, it will be impossible at London, Hamburg, or even at New York, or any other great centre of commerce, for gold to fall much below $15\frac{1}{2}$ times its weight in silver.*" (M. Chevalier.)

I have said that the principle stated above is admitted with practical unanimity by all who are competent to speak on financial questions. The only question that can possibly arise is as to the degree of the effect produced. On this point, divergence is to be expected and to be tolerated. In other words, the quality of the effect is conceded. The quantity of the effect is in dispute: men will take positions on that subject according to their predilections, according to the amount of their information, according to their temperament and habit of mind. This is simply to say that the question of bimetallism, like the question of protection, and, indeed, like most other questions in economics, is purely a question of degree. That is the very expression used by Jevons,* many years ago, in this connection. Whether (1) the influence which the bimetallic system must necessarily exert in the direction of bringing the two metals together, at the mint-ratio, will prove sufficient importantly to modify the tendencies to divergence from natural or commercial causes; whether (2) that influence could be made to go so far, under fortunate circumstances, as to secure a reasonably close approximation to parity of value through an extended period of time; whether (3) in the case of a still larger application of the principle of the indifferent legal-tender power of silver and gold, through the union of a number of important commercial nations, that influence could be exerted to the point of practically extinguishing all preference for either metal outside "the bimetallic basin";

* Money and the Mechanism of Exchange, p. 141.

whether (4) the objects to be gained by such measures are of sufficient consequence to compensate for the efforts involved in setting up and maintaining the bimetallic system—these are questions regarding which men may fairly differ. We shall be in a better position to discuss them, from the bimetallist point of view, when we have seen the working of the French system, under the great storm which followed the gold discoveries of California and Australia. At present I wish only to call attention to the unanimous concurrence of educated economic opinion as to the validity of the principle itself, as to the quality of the effect to be produced. But, indeed, there is small need of witnesses on such a point. No thinking man can fail to see that, if such a system as the French is brought into operation, it must, just as long as any of the appreciating metal remains, exert precisely the influence indicated, in precisely the way shown, to restrain for the time any and all tendencies to a divergence of the two metals due to natural or to commercial causes, or to both.

During the last two or three years, in the absence of anything to be said to break the force of the evidence establishing the efficiency of the French bimetallic system, a great deal has been made of the argument that, in setting up that system in 1803, France had no thought of doing a service to mankind in general, but was actuated solely by the desire to secure for herself a circulation of gold and silver. It is urged that, inasmuch as the general economic benefit of the bimetallic system came to be realized, not of purpose, but as it were accidentally, the scheme of

international bimetallism to-day, in the general interest of mankind, is somehow discredited. The New York *Evening Post* has sought to ridicule this view of bimetallism by styling its advocates "Neo-bimetallists"; and Mr. Shaw, in his "History of Currency," says: "There was no conception of a theory of bimetallism in 1803, nor any conception of a bimetallic function to be performed for the good of the human race by bimetallic France. This is a conception of the schools and bred of later needs and hopes and fears."

It is difficult to comprehend how the fact that the French system developed the practicability of a larger service and usefulness than was in contemplation, constitutes an objection to bimetallism. Such a plea bears the worn and painful look common to those arguments which men advance when they have been beaten on all their original contentions, and are driven very near the wall. The matter does not seem worth talking about. Among the various accounts given of the discovery of gunpowder is one which relates that the learned and curious monk, who had conducted his researches up to the critical point, was blown out of the window by the premature ignition of the compound. All the same, gunpowder was discovered. In like manner, it does not in the least matter whether the virtues of bimetallism were anticipated by the statesmen of France in 1785, or in 1803, or were accidentally hit upon as the result of French experience. There is an old and eloquent passage which occurs to the mind in such a connection, "They builded better than they knew."

Why should it be deemed reason for reproach that

the theory of international bimetallism was gradually developed? The monometallists assert that their system came about in a natural way, by insensible gradations. The theory of international bimetallism is far more distinctly and unmistakably the product of evolution. First, we have the state of things when, under the domination of utterly false views regarding the nature and office of money, nations struggled with each other for the possession of the existing stock of the precious metals; while, within each nation, kings corrupted their own coin and cheated their own people. Then we reach the state in which the purposed degradation of the coin falls out of the toleration of mankind, and the mints of Europe become honest, while yet the monetary theories of kings and parliaments remain unenlightened. Gradually follows the decay of the mercantile system, in the more contracted sense of that term, that is, as bearing on the question of money. The old laws prohibiting export or melting down of the precious metals, and other statutes framed with the purpose of seizing and retaining the largest possible share of the world's gold and silver, are repealed; trade in the precious metals becomes free. As between the two, silver is generally the standard, with gold rated to it, from time to time, by law or proclamation. Still the attitude of the nations remains individualistic, selfish, antagonistic; but the possession of metal money is no longer considered the sole fortunate result of trade, the one object of production. The office of money, as merely the tool and agency of commerce, comes to be apprehended; and the literature of the subject is enriched by works of great and

permanent value. The next step forward is a long one. A great nation, the largest metal-using nation of the civilized world, establishes in permanence a ratio between gold and silver; and, with free importation, free coinage, and free exportation, undertakes to regulate and control the value of the precious metals for its own national purposes. This great experiment results in an unexpected benefit to mankind. The astonishing spectacle is exhibited of one nation, alone, unaided, not only maintaining that monetary system unshattered and almost unshaken, through the greatest storm of centuries, but even preserving the monetary peace of the world and carrying Europe safe through what threatened to be a complete wreck of industry and finance. Out of this experience came a theory, the theory which we are now considering, namely, that, if a single people could exert such prodigious power in influencing and controlling the relations of the two money metals, by admitting them freely to coinage at a ratio and making them indifferently legal tender in the payment of debts, the co-operation of a group of commercial states, both increasing the strength of the bimetallic system, on the one hand, and, on the other hand, diminishing the extent and violence of the hostile forces by which it could in any event be assailed, might suffice to give the world a circulating medium which should be essentially the same in all lands; whose value should be more stable,* through long terms of years, than either of its two constituents

*And which should thus be "sound money" and "honest money," in a much higher degree than monometallic money could be.

could possibly be; and which, by creating a normal par of exchange between all trading communities, should conduce to the promotion of international intercourse and to the peace and prosperity of mankind. No wonder such a theory had to wait until well into the middle of the nineteenth century that it might be born! It was only when the humane sentiments had made great progress in removing the prejudices and animosities of nations and races; when international alliances, leagues, and conventions had made familiar the idea of co-operation for the general good; when the example of the successful maintenance of rules and regulations relating to a great variety of subjects, equally well in war and in peace, had banished the incredulity as to the possibility of such action which arose naturally enough from national hatreds, suspicions, and mutual injuries—it was only in such a time that a theory like that of international bimetallism could possibly have found acceptance on the part of financiers, statesmen, and men of business; and it was only when the true theory of the general interest of mankind in respect to money had been developed to the point reached at about the middle of our own century, that such a theory could possibly have taken definite form.

I have spoken of the co-operation of States in a bimetallic league as both increasing the strength of that system, on the one hand, and, on the other hand, diminishing the extent and violence of the hostile forces by which it can in any event be assailed. Let us illustrate this point. Each country which enters a bimetallic league strengthens the system in two ways:

first, by contributing to the stock of the metal which at any time in the future may tend to become the dearer at the ratio; secondly, by withdrawing itself from the list of countries which can participate in the drain upon the appreciating metal in the bimetallic stock. For example, let us suppose that the commercial world is made up of seven nations, A to G, inclusive, equal in all the elements which affect the monetary problem. Of these, A, B, and C are gold monometallic states; D is bimetallic; E, F, and G are silver monometallic: thus, A, B, C, (D), E, F, G. Now, in case gold were to tend to become more valuable than silver at the ratio, the new silver from the mines, and probably, also, some of the silver from E, F, and G, would pass into D, be there exchanged at the ratio, for gold, which would be exported to A, B, and C, where some small profit would be realized. This movement could not assume an indefinitely active rate. E, F, and G must still have silver enough for their own circulation. If they were to lose any part of the amount actually so required, that would cause the value of silver to rise, which would act as a check to any further export of that metal. On the other hand, A, B, and C cannot take an indefinite amount of gold as money. Were they to import gold above the amount required for their ordinary circulation, that of itself would make gold prices rise, which is the same as saying that the purchasing power of any given quantity of gold would fall, which fact would tend to diminish or altogether destroy the advantage of further importing that metal. In the same way, if silver tended to become the dearer at the

ratio, the new gold from the mines, and probably, also, some from A, B, and C, would be sent into D, and there exchanged for silver, which, in turn, would be exported, with some little profit, to E, F, and G. This process, however, would be limited, as to its rate and its duration, by the causes already indicated.

From the foregoing illustration it appears that, in the given case, country D, in order to sustain its bimetallic system, must possess a stock of gold sufficient to withstand a drain from A, B, and C, in case gold should become the dearer, at the ratio, and a stock of silver sufficient to sustain the drain from E, F, and G, should silver become the dearer. Now, let us suppose that one gold monometallic state, C, and one silver monometallic state, E, join D in a bimetallic league: thus, A, B, (C, D, E), F, G. Not only is the stock subject to drain, in the case of important changes in the conditions of production and use of the precious metals, three times as great as before, but the possible force of that drain has been diminished in the proportion of three to two. In the event of either metal tending to become dearer, at the ratio, we should now have, not three gold states or three silver states drawing upon one bimetallic state for the appreciating metal, but two gold states or two silver states drawing upon three bimetallic states. It is easy to see that the bimetallic system, through this reinforcement, has been strengthened, as against any hostile force likely to present itself, not threefold, but tenfold, or twentyfold, or thirtyfold. To increase the "factor of safety" in a bridge from 2 to 4, is not merely to diminish by one half the chances of disaster,

as against the hostile forces likely to operate in the case. It will diminish the chances of accident in far higher proportion; it may even reduce them to nothing. The difference may be mathematically infinite.* With such a relation of the parties to international commerce as has been supposed, it might never happen that the drain upon the diminishing metal would be sufficiently active or long continued to afford any appreciable strain to the bimetallic system.

Returning to the point as to the larger view taken of the relations of money to production and trade and general prosperity, as the result of the experience and observation of more recent times, I cannot do better than to quote, from the *English Historical Review* for October, 1895, the very suggestive remarks of Professor Herbert S. Foxwell, St. Johns College, Cambridge, Jevons's successor as lecturer in Political Economy in University College, London, and the editor of his posthumous works. Prof. Foxwell says:

"There are two kinds of problems involved in the working of monetary systems—problems of internal equivalence, or parity, and problems of external valuation, or stability of purchasing power. The currencies of all civilized nations are composite, some of them composite in a high degree; all use various metals as well as paper, and have several forms of legal tender. With all advanced nations it is a first principle that the various constituents of their currencies shall circulate at

* It is, of course, conceivable that an extraordinary concurrence of winds and tides might wreck a bridge with a factor of safety of four, as readily as one with a factor of safety of two; but, on the other hand, out of a hundred or a thousand storms any one of which would prostrate the latter, not one might seriously endanger the former.

the par indicated by their nominal values. This parity may be secured in various ways—by limitation of issue, as in the case of token coinages; by convertibility on demand, as in the case of notes; or by free mintage at a fixed ratio, as in the case of French bimetallism. . . . But the other group of problems concerned with the external relations of a currency, while they both now are and always have been infinitely more important in their historical effects, present difficulties which are still unsolved. Reasonable stability of prices is the first condition of social justice in a society whose economic relations are determined by price. Clearness and fixity of relation between the moneys of various nations are as essential to international trade as the internal parity of a currency is to domestic trade. But the currencies of the Western world are still notoriously unstable in their purchasing power; and the 'break of gauge' between East and West still continues, in spite of the repeated efforts of Europe to remove it. The real importance of currency history and the real interest of currency study lie in these questions of valuation—of the external relation of currencies." (pp. 772-3.)

In continuation of the subject, Professor Foxwell, in his address before the National Liberal Club, in March, 1895, said:

"Writers upon monetary matters may be divided into two classes. There are those who look at money from the point of view of the coinage or the bank counter, and whose ideals are satisfied when all the various forms of circulation in which they are directly interested exchange at par, and without inconvenience. There are others who are not content to stop here, but go on to inquire into the adequacy or inadequacy of this composite and interchangeable circulation—to ask what are the variations in its purchasing power, how far it possesses that stability of value without which it cannot be regarded as a just or convenient money standard. . . . Writers of the first class are usually monometallists."

THE EXCHANGE OF THE METALS.

Returning from this excursion, let us see exactly what took place in France between 1803 and the gold discoveries of California and Australia. It has already been said that even approximate statistics of the bullion movement were not available until 1822; but common fame is a sufficient witness that, from an early point in the century, there was a movement in progress bringing silver rapidly into France. When we first get the actual figures of importation, we find that country taking up an enormous amount of the world's silver and coining it into five-franc pieces. From 1822 to 1851, a period of thirty years, the net importations of silver* reached 2680 million francs, or 536 million dollars, or 107 million pounds sterling. It was the assumption by France of this mass of silver, under her

* TABLE OF NET IMPORTS OF SILVER INTO FRANCE, 1822 TO 1851, INCLUSIVE. (IN FRANCS.)

1822.....	125,000,000	1837.....	144,000,000
1823.....	114,000,000	1838.....	120,000,000
1824.....	124,000,000	1839.....	75,000,000
1825.....	Not stated	1840.....	96,000,000
1826.....	“ “	1841.....	117,000,000
1827.....	“ “	1842.....	92,000,000
1828.....	“ “	1843.....	103,000,000
1829.....	“ “	1844.....	82,000,000
1830.....	151,000,000	1845.....	90,000,000
1831.....	181,000,000	1846.....	47,000,000
1832.....	60,000,000	1847.....	53,000,000
1833.....	75,000,000	1848.....	214,000,000
1834.....	101,000,000	1849.....	244,000,000
1835.....	74,000,000	1850.....	73,000,000
1836.....	27,000,000	1851.....	78,000,000

(Shaw's History of Currency, p. 184.)

bimetallic system, which kept the two metals so near the ratio which had been adopted by the Act of 1803, against all the forces making for divergence. It speaks for itself that, but for this, the divergence must have been vastly greater than it was. I have already mentioned the ratios between the metals, by ten-year periods, according to which the prices in the Hamburg market stood always above the gold price of silver as fixed at the French mint. The figures of yearly fluctuations, however, are not so uniform, and are found now on one side and now on the other of the line of 15.50, though generally, and subsequently to 1819 always, on the side which represents a value of gold larger than $15\frac{1}{2}$ times its weight in silver. In France, however, by the necessity of the case, the ratio of the market remained ever very close to that of the mint.* Inasmuch as any person had a right to bring silver, in unlimited quantities, to be coined into five-franc pieces, which could be exchanged against gold at the ratio of $15\frac{1}{2}$ to 1, no holder of silver would, under the normal operation of the principle of self-interest, sell silver bullion under that ratio, by more than the slight amount which represented the cost of rendering the silver into coin, including the element of loss of time. Nor, with such a market continually open, could silver fall in any considerable degree below that ratio in any of the bullion markets of the world. As M. Chevalier said: So long as

* In 1828, Mr. Alexander Baring, afterwards Lord Ashburton, stated that the variation rarely exceeded one-tenth of one per cent, though under exceptional conditions it might reach one-quarter of one per cent.

France stood ready to coin silver at this ratio, it was impossible that the gold price of silver, thus established, should be far departed from at London, Hamburg, or, as he adds, "even at New York." The word "even" has reference, not only to the greater distance of New York, than of London or Hamburg, from the Paris mint, but also to its greater proximity to the mines of California. And this leads me to remark that the figures given of bullion quotations in foreign markets have to be considered always in connection with the elements of cost involved in moving the metal to France, and securing its coinage. In an article in the *Quarterly Journal of Economics* for January of this year, Professor Willard Fisher, of Wesleyan University, says:

"Professor Laughlin utterly fails to grasp what bimetallicists claim for and expect from their system; and he makes the same mistake that Mr. Robert Giffen made in his *Case against Bimetallism*. They both think that, if the French law of 1803 had any effect upon the market value of the precious metals, it must have kept the commercial ratio at exactly $15\frac{1}{2}$ to 1; and, in citing the familiar fact that the market figures fluctuated up and down, but rarely, if ever, coincided with the mint ratio, they complacently assume that they have refuted the historical argument for bimetallicism. But it is absolutely certain that no such identity of ratios could be expected, even by the most confident bimetallicist. So long as there are seigniorage charges, freight charges, insurance fees, or any other expenses involved in passing metal through the mint, the nominal legal ratio is never the effective mint ratio. The inefficiency of the French law in steadying the relative values of the precious metals can never be proved by citing differences between the market ratio and the nominal legal ratio, unless it be shown that the differences are greater than can be accounted for by (1) the seigniorage and all other mint charges, (2) the cost of

transporting the metal from the market whose ratio is cited to the mint, (3) the fees for insurance during the transit, (4) the agents' commissions, (5) the interest on the capital temporarily locked up, and (6) the exigencies of sudden and urgent demand. But no man has even so much as attempted to examine thus fully the deviation of the London market from the French mint ratio. Let just a simple hint as to the effects of these various charges and expenses suffice. The law of 1803 imposed a seigniorage of nine francs a kilo on gold, and three francs a kilo on silver; and, if no thought be given to the five other heads, this mint charge alone makes the effective legal ratio, not $15\frac{1}{2}$ to 1, but anywhere between $15.736+$ to 1 and 15.455 to 1."

We shall have occasion to trace the further progress of the experience of France under the Act of 1803. We shall see its monetary system exposed to terrific trial by the floods of new gold, as the result of the almost simultaneous discovery of the two greatest gold-fields which the world had ever, or has ever, known.

BIMETALLISM IN THE UNITED STATES.

The history of bimetallism in the United States does not call for extended treatment. Were it not for the manner in which the subject has been misrepresented, I should devote to it even less time. There is enough to quarrel about, in the history of American bimetallism; but there is little that is instructive, and nothing that tells upon either side of the issue over international bimetallism. Certain statements, however, by monometallist champions require attention. In his "History of Bimetallism in the United States," Professor Laughlin says:

"No experiment of bimetallism has ever been inaugurated under circumstances more favorable for its success; and no

hostility or suspicion attended its progress. No fairer field for its trial could have been found; and its progress under such conditions makes its history peculiarly instructive. We have had in this country a legal and nominal double standard from the establishment of the mint in 1792 to the present day, with the exception of the years between 1873 and 1878; and in this period of about ninety years we have had almost every possible experience with our system. Has it proved a success in the past? What lessons does it offer for the future?" (p. 8.) "There probably never was a better example of the double standard, one more simple, or one for whose successful trial the conditions could have been more favorable." (p. 23.)

In the same vein, Lord Playfair, in a tract recently published by the Gold Standard Defence Association, of England, after describing the American experience, announces the conclusion: "This short history of bimetallism in the United States conclusively shows that no ratios between silver and gold have been able to maintain a parity of value between silver and gold, or to lessen the operation of the Gresham law, that undervalued and overvalued money cannot remain in concurrent circulation—at least, in parity." Such an assertion would naturally create in the mind of the reader, and especially the English reader, the belief that bimetallism had been fairly and fully tried in the United States—tried in good faith, tried under favorable circumstances; and that, so tried, it had resulted in failure. Such a belief would be entirely erroneous. Bimetallism never has been fairly tried in the United States; and the results of such efforts as have been made do not justify any inference, whatever, adverse to real international bimetallism.

In the first place, a fair trial of bimetallism, under

reasonably favorable conditions, could not possibly, in the nature of the case, have been conducted here. The people of this country, throughout the period under consideration, habitually used so small an amount of either or both of the precious metals, in comparison with other nations, and in comparison with the stock of these metals throughout the world, that a bimetallic law here instituted could not have afforded a fair trial of bimetallism. No one asserts that a bimetallic law can control or influence the market ratio of the two metals, except as its operations affect the demand for the one or the other, for gold or for silver. Now the industry and commerce of this country and the habits of the people in the use of money during the early part of the century, rendered the amount for which the bimetallic system could possibly create a demand inexpressibly small in comparison with that of almost any other civilized nation. Even when commerce extended itself and manufactures arose, the use of metal money by the American people remained inconsiderable. Not only was the demand for one-dollar bills universal; but, in many cases, the issues went down to fractions of the dollar, one half, one quarter, and even lower. During the War of Secession, "shinplasters," as they were popularly known, were issued of the nominal value of five cents.* Not only did the American people carry the use of paper money to these absurd lengths; but the methods of American banking, throughout all the early time to which Lord Playfair especially refers, required only

* Mr. John Jay Knox in his "History of United States Notes," speaks of pieces of paper of as low a value as three cents.

the most trivial reserves, if any, of specie, to support the paper issues. There were cases where the specie reserves of the banks of an entire State fell to three per cent of the immediate liabilities, or even lower. In numerous instances the reserve was practically nil. Prof. Sumner gives an account of one bank whose circulating bills were estimated at \$580,000, and which had in its vaults at the time of its failure only \$86.46 in specie.

Could a bimetallic law, attempting to influence the ratio between silver and gold—which is precisely what a bimetallic law does attempt to do—possibly have anything like a fair trial, in a country where the use of either metal, or of both combined, was so small? Compare, in this respect, the France of 1810–20, its “circulation saturated with specie,” to use the phrase of Mr. Baring, with the United States of the same period. And yet it was within these years, as Prof. Laughlin, the monometallist champion, tells us, that the fate of bimetallism in the United States was virtually decided.* What conclusions, adverse to the

* The principal controversy as to the history of bimetallism in the United States has arisen over the question when gold went out of circulation under the first ratio, namely, that of 15 : 1. The monometallists assert that this took place as early as 1817. The bimetallicists assert that it was several years later when the English Resumption Act had called for something like £25,000,000 in gold. There are statements, somewhat in the nature of evidence, on both sides; but those quoted by the monometallists are subject to the same exceptions which are taken to the assertions that gold was not in circulation in France during the greater part of the eighteenth century, prior to the Act of 1785; that after 1822 gold was again completely out of circulation in that country until the Californian and Australian discoveries; and, finally, that

system we propose, could fairly be drawn from any effort, however sincere and earnest, on the part of a people who were so little in a condition to exert a practical influence upon the market value of either or both the money metals?

But, secondly, it must be added that the manner in which bimetallism was put into operation here, by the Act of 1792, on the one hand, or by that of 1834, on the other, was such as necessarily to bring about an early failure, even though the principle of bimetallism were admitted to be perfectly sound. The ratios taken, first in 1792, and secondly in 1834, were such as fully to justify the statement that bimetallism never was fairly tried. Indeed, respecting the legislation of 1834, we may say that it is beyond question Congress did not expect or intend the concurrent circulation of the two metals.

When Congress and the Secretary of the Treasury, in 1792, came to fix the ratio at which the two metals should be coined, they selected that of 15 to 1. Something may be said in favor of Mr. Hamilton's good faith in selecting this ratio; but Lord Playfair himself states that the real value was more nearly the French ratio of $15\frac{1}{2}$ to 1. We have not time here to discuss the question whether Hamilton really intended to find the true value of silver in terms of gold, and of gold in terms of silver. The fact is, the ratio adopted was one beneath the commercial value of gold. It was, also, apart from the ratio which had been established in France, under Calonne, in 1785. Had

silver disappeared wholly from circulation in France after 1852. On these points see pp. 85, 86, 119, 120, and 126.

Congress really desired and intended to establish a bimetallic system, and had it acted with mere, ordinary intelligence, it would have chosen the French ratio. It would have joined its force, small as that was, to that of France in holding together gold and silver at the ratio of $15\frac{1}{2}$ to 1; and, since "every little helps," such co-operation might have had an influence at some critical points in the period which followed. The deliberate choice of a ratio apart from that of the French, and less favorable to gold, could possibly have but one result. It is difficult to see how, to the mind of an intelligent financier, such an act could have had any other meaning and purpose than that the United States were to supply themselves freely with silver, from Mexico and the West Indies, over-bidding France and Europe generally in this respect, and letting gold go, as less suited to the immediate wants and occasions of the American people, in that stage of their commercial and industrial development. But, whether Hamilton* and the American Congress really at the time meant this, or not, the fact that they exerted whatever force they had in pulling against the

* Professor Laughlin clearly expresses the opinion that Hamilton did not expect to obtain gold for domestic circulation, and that he fixed the ratio at such a point as to make certain that the United States would attract to itself a sufficient amount of silver. "Although he [Hamilton] preferred a single standard of gold, he must be content to take what he could get; and silver was most easily secured for the new currency. . . . Like the farmer of limited means, who preferred the better though more expensive land, but took the cheaper piece because it was within his reach, Hamilton naturally adopted the poor-country plan; and, in order to secure a metallic currency, took measures to retain silver, the best he could get—with the hope of keeping gold also."

French ratio, instead of pulling with it, destroys the value of every inference from the result of that experiment against the proposal for a true and loyal international bimetallism. Hence I deem it too much to say, so far as the period 1792 to 1834 is concerned, that the "history of bimetallism in the United States conclusively shows that no ratios between silver and gold have been able to maintain a parity of value between silver and gold."

If bimetallism was not fairly tried in the United States prior to 1834, how was it after that date? At that time the public mind of the United States was agitated by the discovery of gold-mines, of unknown value, in Georgia and North Carolina, and elsewhere in the southern Appalachian chain. There was thus created a particular and local interest—which demanded that gold be favored in the coinage, just as, forty years later, a particular and local interest demanded legislation to promote the silver interest. With this, in 1834, coincided a political movement of tremendous force, arising from hostility to the United States Bank, an issue which was then convulsing the country from end to end. One of the parties to this controversy united with the representatives of the interested sections in demanding a readjustment of the ratio. The bill, as first introduced, made the new ratio approximately that of the market, namely, 1 to 15.6. In this form the measure was apparently in the interest of bimetallism. Even this appearance was not long maintained. The ratio of 1 to 15.6 was thrown overboard, and that of 1 to 16 adopted. The bill was popularly known as the Gold Bill. Its advo-

cates were jubilant and aggressive; and the purpose of overvaluing gold was announced. Only one result could follow. Silver, thus largely undervalued, to a great extent left the country. The United States could, at the best, have exerted little influence upon the market value of the two metals, for the reason, as previously stated, that the people used little metal money of either kind. Even this degree of influence, instead of being used to sustain bimetallism, was practically exerted against it.

How, in the face of such facts regarding bimetalism in the United States after 1834, can it possibly be said, in Lord Playfair's terms, that the history of that time conclusively shows that no ratios between silver and gold have been able to maintain a parity between silver and gold? According to the undisputed record, according to Lord Playfair's own views, the United States were not attempting to secure bimetalism; they purposely overvalued gold in the coinage; they deliberately chose not to join their forces with those of France in the attempt to maintain a concurrent circulation; but, as in 1792, took a ratio apart. How Prof. Laughlin can justify to himself such statements as that "no experiment of bimetallism has ever been inaugurated under circumstances more favorable for its success. . . . No fairer field for its trial could have been found; . . . there probably never was a better example of the double standard, one more simple, or one for whose successful trial the conditions could have been more favorable," utterly passes my comprehension.

CHAPTER V.

FRENCH BIMETALLISM TO 1873.

IN the last chapter we saw France, through a long term of years, importing vast quantities of silver, under the operation of the bimetallic system, that metal being overvalued at the mint, and consequently finding there its best market. We saw that this operation became continuous from some time considerably earlier than 1822; and that, from the latter date on to 1851, the net importation of silver reached the enormous aggregate of 2680 million francs. In popular statements regarding this period, it is usually said that this influx of silver was coincident with a large exportation of the undervalued gold. The figures of the French custom-house do not bear out this assertion. From 1822 to 1851 the exports of gold in some years exceeded the imports. In other years the current was reversed. In the aggregate of the whole period, the imports actually exceeded the exports.*

To say that France did not, in this period, part with her gold is, however, not to say that the proportion of the two metals in her currency did not undergo a change. In the first place, so great is the waste of

* It is not improbable that the gold carried out of France "on the person" may have made up the difference.

coined money by accidental loss, and ordinary "wear and tear," even with the improvements of modern coinage, that the mere cessation of importation of one metal would in no long time cause a considerable alteration. In the second place, the demand for gold to be used in the arts, industrial and decorative, was all the while drawing down the monetary supply of this metal. In the third place, it is undoubtedly true that the instinct of hoarding, always strong in France, attached itself under these circumstances especially to gold; and that this metal came to be found in constantly increasing amounts in private stocks, and in the reserves of bankers and merchants. In the last instance, however, the gold remained as purely money as if in circulation. Bankers and merchants must have reserves, of one metal or the other; and the fact that gold was more and more taken for this purpose, in this time, did not constitute a true reduction of the money-supply, unless, indeed, those reserves were excessive.

The joint effect of these causes, acting in reduction of the supply of gold money in France, combined with the influence of an enormous importation of silver, had, by 1851, brought about a very different proportion of the two metals in the circulation from that which had existed in the earlier time. It is a familiar statement that no gold money was left in France,* that the cir-

* Thus, Mr. Henry Dunning MacLeod, in his tract, published by the Gold Standard Defence Association, says: "In 1839-40 I resided in France; and I can certify that there was no gold to be seen in common use." So a traveller in the United States to-day might go far without seeing a piece of gold; yet we are supposed

ulation had come to be completely of silver. This statement is of the same kind as those upon which I commented unfavorably in a previous chapter. It is true that the mass of gold money had been reduced greatly. It is true that money of this kind in ordinary circulation had been reduced still more greatly; but it is also true that at any time within this period there was gold money in France, just as there had been gold money from the year 1726 down to or towards 1785: gold money, performing the normal office of money, to be met with in trade and to be exchanged for silver at the legal ratio. Probably if the natural conditions of the production and supply of the two metals had continued the same during a much longer period, the result, which is so often erroneously declared to have taken place, would have come about; and France would have been brought down to silver monometallism, the law of 1803 to the contrary notwithstanding. It cannot be too frequently said that law can control or influence values only by setting in operation an economic force; and a bimetallic law can only bring an economic force to bear upon the values of the two metals so long as some appreciable amount of that metal which at the time tends to become the dearer

to have some hundreds of millions in this country performing the office of money, either in circulation or serving as the basis of coin certificates, or held as banking reserves. Prof. Émile de Laveleye states that France from 1803 to 1842 coined 47,779,389 gold twenty-franc pieces. Mr. MacLeod was very unlucky not to see one of them. The aggregate value was nearly a thousand million of francs. The average gold coinage during this period, when it is customary to say that gold had gone out of circulation in France, was about twenty-four million francs a year.

remains subject to exchange. But the amount of metallic money normally in use in France was large enough to extend across two periods of fluctuation in the production of the precious metals, at least as those periods have been measured in our century. France preserved her bimetallic system in full virtue from 1819, when the market value of gold bullion in England and on the Continent rose definitively above the ratio of the Paris Mint, down to the middle of the century, when the era of the great gold-production began. And, again, as we shall see, she was able to carry that system on, through the period when gold was coming in upon her mints like the waters of a broken dam, and to maintain a stock of the then appreciating silver until a third great change took place in the natural conditions of production; and silver, in its turn, tended to fall in comparison with gold. For myself, I entertain not the slightest doubt that, but for the hostile action of Germany between 1871 and 1873, France, with her then monetary allies of the Latin Union, would have been able to continue this beneficent function on to our own day, when the South African gold-fields,* were

* The reports of the Director of the U. S. Mint give the following figures for the African yield:

1887.....	2,888	kilos
1888.....	6,771	"
1889.....	12,920	"
1890.....	15,432	"
1891.....	23,687	"
1892.....	36,461	"
1893.....	43,550	"
1894.....	60,595	"

so unexpectedly opened to human enterprise. For this reason, it seems to me that the image of a ship long enough to ride over two or three waves at once is not inappropriate.

THE GOLD PANIC.

In 1848 occurred the discovery of gold on the Pacific coast of North America. Only three years later, on the other side of the globe, gold was discovered in enormous and seemingly inexhaustible amounts in Australia. It is surely one of the most marvelous coincidences of human history, that of the three great "finds" of the yellow metal which have occurred since authentic history began, two should have come within so narrow a space. The aggregate effect upon the supply of gold produced by the simultaneous discovery of the California and Australia mines, together with a three- or four-fold increase in the yield of the alluvial deposits of the Ural Mountains, threatened for the time to be overwhelming. The average production of the world had been twenty or thirty million dollars. In a few years it rose to five times that amount. Within the ten or twelve years succeeding 1851 it is estimated that the stock of gold in the hands of civilized man was literally doubled! During the decade 1801-10 the production of silver had been to that of gold, by weight, 50.2 to 1; during the decade 1851-60 it was only 4.4 to 1, a change to the extent of nearly $\frac{11}{2}$. M. Chevalier states the change in production in still higher terms. In 1857 he wrote that the production of gold as compared with silver

had increased five-fold since 1851, and fifteen-fold in the course of only forty years. A veritable gold-panic set in. It hardly seemed to any one out of France that it would be possible to stem the flood, and to save commercial and financial values from such a fall as would amount to the destruction of all individual credit. Few dared to hope that the barrier which France had, to this time, interposed against fluctuations in the value of the two metals, could long withstand the strain. If once that gave way, gold might fall, in a succession of plunges, from crag to crag, down to a level which would mean nothing less than universal bankruptcy. Estimates were freely made that, from being worth $15\frac{1}{2}$ to 1 of silver, it would soon be worth 12 to 1, 10 to 1, even 8 to 1. In his book on the "Probable Fall in the Value of Gold," Chevalier more than once uses the illustration of a fall to one-half its former value. He indeed states that this assumption is not the result of anything like exact computation, and is only used to show briefly and strikingly what might come from the bursting of the great reservoir and the rushing of its mighty waters down upon the marts of trade and the seats of industry; but Chevalier would not have used this illustration so freely had he regarded it as an extravagant statement of the possibilities, and even the reasonable probabilities, of the case.

The nations of Europe were prompt to take alarm at the menace to industry, finance, and even the social structure. "Ten years ago," wrote M. Léon Faucher, in 1852, in his work *The Production of the Precious Metals*, "every one was frightened at the pros-

pect of the depreciation of silver: during the last eighteen months, it is the diminution in the price of gold that has been alarming the public." In June, 1850, Holland * demonetized the gold 10-florin piece and the guillaume. Portugal prohibited any gold from having current value, except English sovereigns. Belgium demonetized its gold circulation. Russia prohibited the export of silver, as the metal likely to become the very stay and staff of the national existence. Austria, which was then on a basis of inconvertible paper, thought that the cheapening of gold offered a favorable opportunity to come to a metallic basis, and called the German states to meet in a monetary conference at Vienna. The other states feared the depreciating gold and insisted on the single silver standard. The most that Austria could do was to secure the concession of the coinage of gold crowns as *trade pieces*! (Suess, *Die Zukunft des Goldes*, 11, 12; Soetbeer, *Litteraturnachweis über Geld- u. Münzwesen*, 77, 78.)

* This measure had been outlined and announced as early as 1847; but remained inchoate and ineffective until the Gold Panic. M. Faucher attributes the chief effect prejudicial to gold, at this time, to the Dutch demonetization. The amount thus thrown upon the market was more than twice the annual production of that metal before 1851. Moreover, he alleges, the Act was blunderingly accomplished. The estimated amount to be demonetized was only one-half the real amount, as ascertained, and the provision for refunding was inadequate. Again, too short a time was fixed for redemption. As a consequence of these blunders, an unnecessary gold panic was induced. M. Faucher says: "To prevent future evil, they created immediate mischief; and, in order to shelter themselves from the risk of a future depreciation of gold, they directly produced it."

In some countries shops sought to attract trade by offering to receive gold at par. M. de Lavelèye states (*La Mon. et le Bimet.*, p. xii) that traders hung out the sign, "L'or est reçu sans perte"! "Even in England," wrote Chevalier, "some persons have put forth the advice that the standard should be altered, and that silver should be substituted for gold. They ground their opinion, primarily, upon the plea of principle, in maintaining that, gold having ceased for an interval of time, which may possibly be rather long, to satisfy the essential condition of having a value relatively stable, it thereby loses its aptitude for the functions of money." So respectable an authority as Mr. James Maclaren, author of the "History of the Currency," put forth a proposal that life-insurance companies should be established on a silver basis. Certain American corporations,* in the same period, sought to safeguard themselves by similar arrangements; and to this day have the satisfaction of receiving, every month, a certain number of ounces of fine silver, paid in for rents under contracts then made. One English financier is quoted as declaring that gold would soon only be "fit for the dust-pan."

Amid this general alarm, amounting to panic, the statesmen and financiers of France stood firm. The government, indeed, assembled a commission for the consideration of the question in its new and startling aspects; and some economists, like Chevalier, declared in favor of silver monometallism, as the only hope of preserving industry and trade and the social structure.

* The Essex and Holyoke Water-power Companies were among the number.

Chevalier proposed to return to the system in force down to 1785,* when silver was the standard; and gold was rated to it, by law or proclamation. He proposed that this rating should be made every six to twelve months, to keep pace with the fall of gold! He even raises the question whether the gold coin thus issued should not be restricted as to the amount for which it could be tendered! And this, of Gold! The man who could put forward such a proposal should have been prosecuted for *lèse majesté*. But the hearts of the men who controlled the destinies of France did not fail. Freely that country gave of her silver to all; † freely took gold from all, without fear

* Chevalier claimed that silver was still *the standard* in France, in spite of the measures of 1785 and 1803. He speaks of France as having "a silver standard but a gold currency." He relies on a quoted utterance of Calonne.

† I have quoted M. Calonne to show that, in spite of "Gresham's Law," the appreciating metal remained in actual circulation during the greater part, at least, of the period 1726-1785; and have stated that, between 1803 and the Californian discoveries, although silver was being imported to an enormous extent, because overvalued in the coinage, gold still remained money in France in appreciable quantities. I now quote M. de Parieu to prove that, during the great influx of gold after 1853, silver did not disappear. That gentleman, a leading monometallist, and Vice-President of the International Conference of 1867, on that occasion said: "Great masses must be operated upon, to find a profit in the exchange of metals; and the change of metals takes place slowly, by successive movements. For these reasons, the general circulation is neither suddenly nor seriously affected by changes in the relative value of the metals, for *France has always had much silver in circulation*, even when that metal was largely exported."

In the same vein, Chevalier, writing his *Baisse Probable*, in 1858 or 1859, says (p. 276): "Il reste en France encore beaucoup de monnaie d'argent, tout ce qu'il en faut pour composer, avec

of its becoming worthless on her hands. Year after year the flood of the yellow metal poured in upon her mints; and her moneyers stood at their posts to coin it and give it back, full legal tender, at $15\frac{1}{2}$ to 1. In the eight years between 1853 and 1860, both inclusive, there was imported into France gold to the value of 3082 million francs, or 616 million of dollars, or 123 million pounds sterling. Coincidentally with this influx of gold began the exportation of silver. In the eight years of which we have just spoken, France sold silver to the amount of 1465 million francs, or 293 million dollars, or 59 million pounds sterling.

In his testimony before the Herschell Commission in 1887, Sir R. Giffen notes, as "a curious thing," that, while 220 million pounds sterling of gold was coined in France in 1850 to 1865, and "although that, to a large extent, arose through France having substituted gold for silver in its money, owing to the bimetallic arrangement, yet the amount of silver which France sent away was very much less than that. I think," he says, "it was only about 75 million pounds sterling." I confess I see nothing curious about the matter. It has been stated that between 1822 and 1851, although France exported no gold in excess of imports, there was a great change in the proportion of the two metals in her circulation, owing to the effects produced upon her unre-enforced stock of gold by ordinary wear, by consumption in the arts, by hoard-

les billets de banque, et avec l'or lui-même qu'il ne s'agit point d'exiler, un instrument des échanges très-efficace et très-solide-ment organisé, en conformité de la pensée qui animait le législateur de l'an XI."

ing, and by the substitution of that metal for silver, in the reserves of merchants and bankers. In this instance, France influenced the value of silver by buying of it largely; and she also influenced the price of gold by not buying of it, as usual, and consequently reducing the normal demand upon the current supply. Between 1850 and 1865 France again influenced the relative value of the two metals,* this time both by

* Prof. Willard Fisher has furnished me the following interesting and instructive note:

Divide the history of coinage in France under the law of 1803 into five periods, 1803-1820, 1821-1847, 1848-1852, 1853-1866, 1867-1873.*

In the first period of 18 years the annual average market ratio was in 9 years above $15\frac{1}{2}$, and in 9 years below; and the coinage was about equally of gold and silver, 865,000,000 fr. gold and 1,091,000,000 silver.

In the second period the ratio was every year above the nominal mint ratio and the coinage was 301,000,000 gold, and 2,778,000,000 silver.

In the third period, while gold was beginning to come on the market and the ratio was falling below $15\frac{1}{2} : 1$, the coinage was again about equal, 448,000,000 gold and 543,000,000 silver.

In the fourth period the ratio of the market value was for no year above $15\frac{1}{2} : 1$, and the coinage was mostly gold, 5,311,000,000 gold and 157,000,000 silver.

In the fifth period the ratio was every year above $15\frac{1}{2} : 1$, and the coinage was less and less of gold till in 1872 and 1873 none was coined (Shaw's History of Currency, 185); but the total coinage of this fifth period was of gold 878,000,000, of silver 587,000,000.

	G.	S.
1803-1820.....	865,000,000	1,091,000,000
1821-1847.....	301,000,000	2,778,000,000
1848-1852.....	448,000,000	543,000,000
1853-1866.....	5,311,000,000	157,000,000
1867-1873.....	878,000,000	587,000,000

Both gold and silver were coined, in quite considerable amounts,

buying enormously of gold and by selling silver largely. That the imports of gold still much exceeded the exports of silver is sufficiently explained by the fact that the aggregate stock of the world's money was rapidly increasing; and, of course, France's distributive share of that stock increased, also. Under the operation of the bimetallic law, that increase was wholly of gold.

Such was the course of the greatest financial storm of two centuries. By the end of 1860 the gale had well-nigh blown itself out, though the waves were still running high. During the decade then closing, there had been added to the stock of gold 1407 million dollars, as estimated by Soetbeer; 1257 million, as estimated by Tooke and Newmarch. Even these figures do not fully express the shock which the bimetallic system had to bear during this tremendous crisis. Not only was France without an ally in sustaining the ratio of $15\frac{1}{2}$ to 1; but, in addition to the blows which fell upon her from the enormously increased production of gold, she had to meet the hostile action of other nations in demonetizing that metal, or restricting its use within their own circulation. When it is said that the gale had well-nigh blown itself out by the close of 1860, it is not meant that the production of gold very greatly declined after that period, though, in fact, it fell off considerably, owing to the exhaustion of the richest of the alluvial deposits; the average of the next decade was, according to Tooke and Newmarch, almost precisely 20 per cent

every single year from 1803 till 1873, except that in 1872 and 1873 no gold was coined.

below that of 1851-60. But the storm-centre had passed by France. The other countries, protected so long by the action of the French bimetallic system, were now experiencing the effects of the increased production of the precious metals, in a not too tumultuous manner, by gradual accessions which exerted an influence on trade, industry, and the social structure, here and there injurious to individuals, but on the whole immensely beneficial to mankind.* The French breakwater had beaten off the fury of the waves, but it could not, and indeed it was not desirable that it should, prevent the level of the harbor thus protected from being gradually raised.

In his testimony before the Commission on Agriculture, in 1894, Sir Robert Giffen again referred to the statistics of the exports of silver from France after the gold discoveries, and this time in a more disparaging way, and with an expression of the opinion that Chevalier did not know what he was talking about when he spoke of France acting as a parachute to break the fall of gold. According to his statement the whole amount of silver with which France parted during twenty years was only "something like fifty†

* Mr. William Newmarch, joint author with Thomas Tooke of the great work on the History of Prices, writing in 1853, said: "We are justified in describing the effects of the new gold as almost wholly beneficial. . . . It has already elevated the condition of the working and poorer classes; it has quickened and extended trade, and exerted an influence which, thus far, is beneficial wherever it has been felt."

† It will be remembered that, in the paragraph recently quoted from his testimony before the Herschell Commission, Sir R. Giffen spoke of the amount of silver exported by France, in this period, as "only about 75 millions sterling."

millions sterling." This Sir R. Giffen deemed an amount too small for the effect generally attributed to the operation of the French monetary system in that period. But it is to be observed that it is not alone the amount of silver sold by France, but also the amount of gold bought by France, which measures the degree of her influence on the market for the precious metals. During eight years, only, viz. 1853 to 1860, France, as we have seen, took 3082 million francs in gold, diminishing by so much the amount to be offered elsewhere for silver; and parted with 1465 million francs in silver, increasing by so much the amount of that metal to be offered elsewhere for gold. This makes the total bullion operation amount to 4547 million francs, or 909 millions of dollars, or 182 million pounds sterling !

THE LATIN UNION.

In 1865, after the first, and, from the bimetallist point of view, the worst, of the effects of the great gold discoveries were over, the French system was apparently much strengthened by the formation of the so-called Latin Union, composed of France, Italy, Belgium, and Switzerland. In the formation of this league, of whose objects and principles we shall have occasion to speak further, the initiative was taken by Belgium, for the purpose, it is alleged, of ultimately bringing about the adoption of a gold standard.* The

* Ques. "The Latin Union was not formed with reference at all to the question as between silver and gold?"—Ans. "They simply adopted the French currency of that time." (Evidence of

Union did not provide, as is usually stated, for the free coinage of both metals; * but it did secure mutual faith, credit, and circulation to the uniform coins of the consenting nations.

I have said that the bimetallic system of France was apparently much strengthened by the accession of the other States which have been named. The re-enforcement was, however, largely nominal. Switzerland was a country so small and poor, industrially and commercially, that it had no mint of its own, its coins being manufactured for it by friendly nations, on contract. The industrial, commercial, and financial character of Belgium was, indeed, of the first order; but with a population of only about five millions this country could not add very greatly to the demand for the depreciating metal, under any monetary strain. The importance of Italy was such as to promise a powerful support, but the finances of the kingdom were already in a wretched condition; and the war with Austria, which broke out in the following year, plunged Italy definitively into an abyss of inconvertible paper. It is probable that the other members of the Latin Union could together exert but a fraction of the influence upon the money metals of which France alone had shown herself capable.

Walter Bagehot before the Committee on the Depreciation of Silver, 1876.)

See account of the formation of the Latin Union. Report of Committee on Depreciation of Silver, 1876, pp. xxxviii-xl. See pp. 174, 180, 192.

* Free mintage, however, existed through the Union, in fact, through the national regulations of the various countries.

AUTHORITATIVE ECONOMIC OPINION.

I have recited hurriedly and rudely the story of the great gold-storm at the middle of the century. It is in contemplating this remarkable experience that economists, financiers, and statesmen, even though strongly monometallist in their views of the interests of their own countries, or even strongly monometallist in their view of the general interests of mankind, have found themselves compelled to admit the entire validity of the bimetallic principle, both in theory and in practice. It will be wholesome to quote some of the opinions which have been carefully and deliberately expressed. I shall confine myself to the statements of men known as monometallists. Professor Stanley Jevons says:

"As to the equilibrating action of the double standard, no one who has inquired into the matter can doubt it any more than he can doubt that one scale of a balance will go up when the other comes down." (*Money and the Mechanism of Exchange*, p. 141.)

"The French currency law has thus no doubt assisted to keep gold and silver at a nearly invariable price, as compared one with the other. . . . Although both gold and silver have, I believe, suffered considerable depreciation, yet relatively they have not varied more than five per cent. Some persons anticipated that the fall in the value of gold would be indicated by a rise in the price of silver; but they overlooked the fact that gold would spread itself into the channels previously occupied by silver." (*Investigations in Currency and Finance*, p. 304.)

"I quite concede to MM. Wolowski and Cernuschi that the bimetallic system does spread fluctuations of supply and demand over a wider area. I have tried to explain in my book on '*Money and the Mechanism of Exchange*' that gold and silver,

free from the action of a legal ratio, are like two unconnected reservoirs of water, each liable to be raised and lowered in level by various accidents. Establish a communication between these reservoirs, and then each new supply spreads itself over a double area, and each new demand is supplied with less effect upon the general level. The legal currency ratio of $15\frac{1}{2}$ to 1 actually does establish a communication of this sort between the reservoirs of gold and silver in the world. (pp. 310, 311.) In the latter part of the last century $15\frac{1}{2}$ to 1 correctly represented the natural ratio. For some fifty years it was held pretty steadily at this point by the action of the French Currency law." (p. 319.)

Prof. Henry Sidgwick, in his "Political Economy" (p. 256), while stating that variations of a certain magnitude cannot be counteracted by the bimetallic system, adds: "The adoption of a double standard will prevent slight variations in supply from affecting the relative market value of the two metals, as it will tend to produce changes in demand sufficient to absorb their effect."

Prof. John E. Cairnes, writing in 1860, remarks: "The crop of gold has been unusually large; the increase in the supply has caused a fall in its value; the fall in its value has led to its being substituted for silver; a mass of silver has thus been disengaged from purposes which it was formerly employed to serve; and the result has been that *both metals have fallen in value together, the depth of the fall being diminished as the surface over which it has taken place has been enlarged.*"

Mr. Bagehot wrote, in September 1876, after the German demonetization, as follows regarding the action of the bimetallic system: "Whenever the value

of the two metals altered, these countries [France and her allies of the Latin Union] acted as equalizing-machines. They took the metal which fell; they sold the metal which rose; and thus the relative value of the two was kept at its old point." I have already quoted the image of a parachute, presented by M. Chevalier. It occurs in the following paragraph taken from his work, so often cited: "If down to the present time [1857], the immense production, of which Australia and California have been the theatre, has not produced a greater fall in the value of gold, it is France which is the cause. It is she that has retarded the depreciation of gold. She plays, in relation to this metal, the part of a parachute." In 1888, the British Royal Commission, of which Lord Herschell was chairman, made up of six bimetallists and six gold monometallists—one of the latter group has since become an advocate of bimetallism—unanimously adopted the following statements:

"When we examine the marked contrast which the period prior to 1873 presents to later periods, and the extensive changes in the relative production of the two metals which took place during the earlier period, it seems impossible to conclude that the circumstances connected with the supply sufficiently account for the altered conditions in the relative value of silver and gold since that date. In the forty years between 1833 and 1873, which include the period of the great gold discoveries, and the consequent increase in the available supply of that metal, but little change in the gold price of silver can be observed. In the ten years from 1831 to 1840, the proportion which the value of the silver produced bore to that of the gold was as 1.86 to 1. In the five years from 1851 to 1855, the proportion had fallen to .288 to 1. Yet the market value of silver only varied between 15.75 to 1 in the former

period, and 15.41 to 1 in the latter. On the other hand, if we compare the five years 1871 to 1875 with the five years 1876 to 1880, we find that the proportion borne by the production of silver to that of gold was .710 to 1 in the first period, and .794 to 1 in the latter. But this change, almost insignificant when compared with those to which we have called attention above, coincided with a fall in the market value from 15.97 to 1 to 17.81 to 1.

"Looking, then, to the vast changes which occurred prior to 1873 in the relative production of the two metals, without any corresponding disturbance in their market value, it appears difficult to us to resist the conclusion that some influence was then at work tending to steady the price of silver, and to keep the ratio which it bore to gold approximately stable. . . . Undoubtedly, the date which forms the dividing line between an epoch of approximate fixity in the relative value of gold and silver and one of marked instability is the year when the bimetallic system, which had previously been in force in the Latin Union, ceased to be in full operation; and we are irresistibly led to the conclusion that the operation of that system, established as it was in countries the population and commerce of which were considerable, exerted a material influence upon the relative value of the two metals.

"So long as that system was in force we think that, notwithstanding the changes in the production and use of the precious metals, it kept the market price of silver approximately steady at the ratio fixed by law between them, namely, $15\frac{1}{2}$ to 1. . . . Nor does it appear to us *à priori* unreasonable to suppose that the existence, in the Latin Union, of a bimetallic system, with a ratio of $15\frac{1}{2}$ to 1, fixed between the two metals, should have been capable of keeping the market price of silver steady at approximately that ratio. . . ."

It would be easy to continue the quotation of extracts to the same effect from economists and financiers of the highest reputation, all disinterested in this matter, or, if not so, then prejudiced in favor of gold monometallism; but the matter has really passed be-

yond controversy. No one worth citing denies that it was, predominantly, the action of the bimetallic system of France which went so far to control the relations of the two precious metals that, in spite of the enormous production of gold, in spite of its demonetization by several nations, the maximum effect of the Californian and Australian discoveries did not exceed $4\frac{3}{4}$ per cent, while its permanent effect only reached $1\frac{1}{2}$ in 100. It cannot be considered unfair to call the attention of those who have been fond of speaking of silver as something that may become too cheap for the principal monetary uses of civilized and progressive nations, to the fact that, within our own time, the continued monetary use of gold was seriously endangered by its cheapness; and that it was silver which enjoyed the preference.

THE BENEFITS OF BIMETALLISM.

Assuming, as we may rightly do, after this demonstration of the power of the bimetallic system, during the great crisis of 1850 to 1860, both the theoretical and the practical reasonableness of that system, let us proceed to ask what are the benefits to be expected from this source. The chief advantages of successful bimetallism may be stated under three heads.

First, the establishment of an approximate Par of Exchange between the gold-using and the silver-using nations. Twenty-five years ago, the world might be said to be divided about equally between these two groups. The preponderance of per capita wealth and of general industrial and commercial power was

on the side of the gold-using nations; but, on the other hand, the preponderance of territory and population was enormously on the side of the silver-using nations. As Mr. Bagehot remarked*: "It used to be said, until a few years ago, that England and Portugal were the only countries where gold was the standard of value; and there were certain countries which had a double standard, but those were not very many; and all the rest were silver. *Silver is the normal currency of the world*; and from a natural cause, because silver is a much cheaper metal, and is suited to those small transactions which constitute the bulk of the dealings of mankind." Midway between the silver-standard and the gold-standard countries stood a small group of States which had undertaken to mediate between the two; to establish an approximate price of silver in terms of gold, of gold in terms of silver. This, as we have seen, was effective at least so far as to reduce the fluctuations of the metals within a very small range; and thus to create an approximate par-of-exchange. The influence of such a cause upon the world's trade, and, by consequence, upon the world's production, could not fail to be of immense benefit to mankind. Without such a bimetallic "link," trade between gold-using and silver-using countries would necessarily have been subject to frequent and often extensive fluctuations in the gold price of silver, or the silver price of gold. What this means we have seen for ourselves, within the past few years, during which silver has more than once fallen, in relation to gold, in the course of

* Report of Select Committee on the Depreciation of Silver.

a single year,* to a greater extent than it did during the two hundred years preceding 1873. Such fluctuations in the relative values of the two money metals continually involve international trade in embarrassment and disturbances of a most serious character; and often reduce it to mere gambling. Without some tie which can hold the two metals at least near to each other, during the time between the manufacture and sale of commodities and the receipt of the proceeds, the producer in a gold country can never tell for how much silver he must sell his goods in order to make himself whole and perhaps win a profit; the producer in a silver country can never tell for how much gold he must sell his goods in order to make himself whole or perhaps win a profit. The range of possible losses or possible gains from this source are such as to be altogether out of proportion to the range of the ordinary chances of industrial and commercial enterprise. A manufacturer, for example, assuming for the moment that the entire operation would be conducted by himself, might produce goods of the best quality and at a low cost; the goods might be of the right kind, that is, goods for which there was a demand; he might send them to the right market, that is, the market where the demand was at the time most active;

* Between 1892 and 1893 the gold price of silver fell 10.9 per cent. The maximum momentary effect of the gold discoveries of California and Australia was less than one half of this. The frequency and extent of the fluctuations in Mexican dollars and in Indian exchange since 1873 are strikingly shown by M. Allard, the eminent Belgian economist, *Graphiques de la Crise monétaire et de la Baisse des Prix 1850-1892, 3me Tableau.*

he might dispose of them at a favorable price to the right persons, that is, to persons thoroughly solvent and responsible; and yet, in spite of taking every one of the steps, between the beginning of the venture and its conclusion, in the most sound and judicious manner, a fall in the value of the money in which he was paid might, before the proceeds could be brought home, strip him of his anticipated profit and even involve him in a loss, perhaps a serious, possibly a fatal, loss.

I cannot, in this connection, adequately express my admiration for the intellectual courage of the leading gold monometallists of the United States, who have treated this consideration as if it were of the very slightest consequence. Nearly every one of these men took part in the discussion of the questions arising out of the issue of greenbacks by the United States Government, during the war, and the continued inconvertibility of our paper money, down to about 1879. In that connection they declared that the loss of a par-of-exchange with other nations was a monstrous evil; that it profoundly disturbed home production; that no anticipated benefits could possibly compensate for the fact that our money was not at a par with the money of the outside world, either as to silver or as to gold; that no effort and no sacrifice should for a moment be considered as standing in the way of instant and strenuous efforts to repair the broken par-of-exchange. And yet not one of these leaders, so far as my reading has extended, has ever given anything like a fair statement of the evils arising from the destruction of a par-of-exchange between the silver-using

and the gold-using groups of nations; while their general tone, in discussing this subject, when they allude to it at all, is invariably one of disparagement and even contempt.

The answer which the gold monometallists of the United States most commonly make, so far as they deign to make any, to the argument in favor of a par-of-exchange between the two halves of the commercial world, is, in brief, that what one person may lose by such fluctuations in the relative values of the two money metals, some other person will gain. Bimetallists have often been taunted with being men of theory; but it may confidently be said that, in their wildest imaginings as to the possible benefits of internationalism in money, no thought so unreal and so impracticable as this has ever occurred. It may be doubted whether the world has any use, at all, for that sort of political economy. It is not always true that what one man loses in production and trade another man gains. There is a vast field of economic relations, within which occur gains which no man loses, and losses which no man gains. If the theory of political economy has made any advance during the last thirty years, it is in no direction more conspicuously than through the recognition of this principle; and the carrying of it out to the problems of taxation, of wages, of finance, and of trade. And even throughout the whole body of those cases where some one does actually gain, to the full extent, what some other loses, it is still unquestionably true that *unearned gains never benefit the recipient to an extent which compensates for the undeserved losses which others suffer.* It is

tries. This is no doubt reduced to a minimum by the action of exchange banks and telegraphic transfers. Where the currents of trade, in opposite directions, between the two countries are more or less constant and uniform, the risk to the exchange banks in undertaking these transactions is but small, however frequent the fluctuations. They are therefore able and willing to undertake them without any very burdensome cost to the trader. Where, however, the counter-currents of trade are less constant, as is said to be the case between this country and China, the burden imposed on commerce is, no doubt, at times, somewhat greater. It must be borne in mind that the fluctuations in exchange, even in a single day, have, of late years, often been considerable; and, inasmuch as it is not always possible to close the transaction on both sides, and make the settlement of the exchange simultaneously, some risk to the merchant is at times inevitable. Besides this, it is said that the exchange difficulty tends to limit trade, and to restrict it to those cases in which a contract of sale and purchase can be made in the two countries at the same time. . . . It must also be remembered that there are certain risks which arise from, or are aggravated by, the fluctuations of exchange, and against which a merchant cannot practically protect himself by any of the expedients to which we have referred. Obstacles, for example, sometimes arise to prevent a contract being carried out at the appointed time; and there are cases in which this would be of comparatively little moment if the exchange were stable, but in which the merchant may be subjected to a serious loss if, with a heavy fall of exchange in the meantime, the purchaser is enabled to refuse to receive the goods."

Again, these Commissioners say:

"However much opinions may differ as to the extent of the evil arising from the increased difficulty which a fluctuating exchange interposes, we do not think its reality is open to question. We are not ourselves disposed to regard it as having hitherto limited or burdened, to any very serious extent, the commerce between this country and those having a silver standard. Nevertheless, everything which hampers com-

plete freedom of commercial intercourse between two countries, or which imposes on it any additional burden, is undoubtedly an evil to be avoided, or removed if possible." (pp. 61, 62.)

In this connection I quote three further statements regarding the effects of fluctuations in the value of the two metals upon international trade. The first is from Sir Louis Mallet, in his separate report from the Herschell Commission. The second is from M. Montefiore Levi, President of the Brussels Conference of 1892; the third, from M. Léon Say, formerly Finance Minister of France, and President of the Conference of 1878. Sir Louis Mallet, whose pre-eminent reputation for knowledge and experience, in matters commercial and financial, commands universal confidence, says:

"I desire to express very distinctly the opinion that I attach far more importance to the injurious effects of constant fluctuations in their relative value, in imparting a character of uncertainty and insecurity to the international exchanges between gold- and silver-using countries, than to a mere alteration in their relation to each other, in one form or other, whether by a rise or fall of either metal." (p. 125.)

M. Montefiore Levi's statement is as follows:

"The principal evil of the present situation lies in the instability that results from it. How would it be possible for the merchant or the manufacturer to make with safety contracts extending over a long period, as important business operations generally do, if the shrewdest judgments and the best-founded calculations might at any moment be upset by a sudden movement of the money market? There is no need, we believe, to look elsewhere for the cause of the noticeable falling off which has taken place in international transactions. The hesitation which checks all great enterprises, and which paralyzes many

markets, is the direct consequence of the instability in the price of silver as compared with gold."

M. Say remarks (Preface to third edition of Goschen's "Foreign Exchanges"):

"Although, in 1861, silver, in England, and gold, in Hamburg, were simple commodities, there existed a guaranty against variations in their relative value. This guaranty, not less real because indirect, was that which France, and, after 1865, the Union of the four Latin powers, France, Belgium, Switzerland, and Italy, *had given to the entire world*, not less truly than to their own citizens, through the establishment of their monetary system. . . . Calonne's arrangement, reaffirmed by the law of the 7th Germinal, an. XI, allowed all countries, alike those using gold and those using silver, for nearly a century, to maintain monetary relations among themselves which conducted to freedom of commercial intercourse and rendered simple the payment of international balances, without any serious trouble in the foreign exchange except such as resulted from emissions of paper money."

I will only make one more quotation, and that from Mr. W. A. Shaw, author of the "History of Currency," whom American monometallists have been very fond of quoting. In his "Proposal for a System of International Money," Mr. Shaw writes as follows:

"The abolition of free coinage has thrown that international system out of joint by limiting the resort and employment of one of the two precious metals, and has thus given a blow to that theory of international trade which has established itself as the result of centuries of development, and which we are bound at all costs to maintain and not overthrow. The blow to this theory and practice of international trade has come, and must increasingly come, from the monometallic system. We are undoing the constructive work of centuries. Monometallism has partially destroyed one prime postulate of international trade, namely, freedom of employ and minting of the pre-

cious metals, and it is equally tending to destroy the other prime postulate, namely, freedom of trade, and that by means of the exchange difficulty. By the two combined causes we are unbinding or unloosing a real international system, one which bound the whole world in one completed circle, and we are thereby reversing and letting slip all the course and advantage of the centuries of development which it has taken to build that system. If the present situation of the currency question continues for a century, it will sever the world into two completely independent and non-communicating circles, silver-using East and gold-using West. The East will go its own way, and the West will be left to reconstruct its shattered system, how and with what friction and loss it may. . . . The whole development of six centuries of painful endeavor and experience, as far as relates to commerce, is rendered, or is increasingly in danger of being rendered, nugatory. It is on this latter point that the main stress of the argument against monometallism rests."

We have dwelt too long upon the first of the advantages which may be looked for from the successful establishment and maintenance of a bimetallic system, namely, the creation of, at least, an approximate par-of-exchange between gold-using and silver-using nations. The second advantage to be anticipated from this course, if not of equal, is of very great importance, namely, the securing of a higher degree of stability in the compound mass of the money thus formed than could possibly exist with the two metals separate and independent in their value movements. There is an important difference between this subject and the one with which we have just been dealing. The beneficial effects of a par-of-exchange between gold-using and silver-using countries would be equally experienced if both gold and silver were at the same time rising or

falling, each according to the influences bearing upon it separately. The advantage we are now to contemplate would be experienced at all times; but would be at its maximum at a time when one of the metals was rising and the other falling. It would be equally of benefit to trade between two gold-using nations and two silver-using nations; and would be equally of benefit to internal and to external commerce. In a word, the object sought is to make money everywhere a better standard of deferred payments than it can be when it consists of one metal alone. It is with reference to this aspect of bimetallism that Prof. Laughlin says ("History of Bimetallism in the United States," p. xi): "Its chief end is to secure, as its advocates claim, a less changeable standard for paying long contracts."

Whether or not this aim of bimetallism is more important than that of securing a par-of-exchange between the two halves of the commercial world, it is certainly, in the view of all bimetallists, of very great importance. That importance arises chiefly from the fact that the production of the precious metals has always been of a highly spasmodic and often intermittent character. We have already seen this, in our brief and hurried narration of the several epochs of monetary history. Now it is gold which rises and swells in volume, as fresh fields, of vast extent and richness, are discovered; now it is silver which pours in mighty floods from the newly opened mines of Potosi or of Nevada. Even during our own century, several of these great changes in the comparative production of the two metals have taken place. If, then, each metal

has its value in commerce subject to the natural causes which affect the supply and to the commercial causes which govern the demand, it is evident that we shall have an incessant fluctuation, not only in the relation between the two metals, but also in the relation of metal money to prices. Such fluctuations cannot, in the nature of the case, be suppressed; but if the two metals can somehow be joined together in their function as money, it is highly reasonable to expect that the aggregate influence of fluctuations in price will be reduced. There will be, on the whole, as things are likely to go, a considerable *compensating effect*, giving the result of a greater degree of steadiness in values. Whenever one metal tends to fall and the other to rise, or where both tend to rise or to fall with different degrees of rapidity, the operation of the bimetallic system must be in the direction indicated. This point, notwithstanding its importance, need not occupy much of our time. The principle has been fully recognized by writers on money. In his very valuable work, entitled "Money and the Mechanism of Exchange," Professor Jevons has offered a discussion of the principle which governs in this matter, reaching the result I have stated. You will recall his illustration with respect to two reservoirs of water, each of which has its own source of supply and its own causes of exhaustion, between which a connecting pipe is placed. Thereafter, whichever be more rapidly fed or be more rapidly drawn upon, the water will stand in the two at a level. It is not necessary to further pursue the question in this place. If the reader is interested to see the subject treated with a high degree of mathe-

mathematical precision, he may consult the very able paper of Dr. Irving Fisher, of Yale University, read at the Oxford Meeting of the British Association for the Advancement of Science, in 1894. This paper has attracted wide attention, on account of its clearness, precision, and force of reasoning. References to Prof. Fisher's paper, and a further mathematical discussion of the subject, will be found in an article by Prof. F. Y. Edgeworth, of Oxford University, in the *Economic Journal* for September, 1895.

Such are the two great standing arguments for bimetallism. It will be observed that they are entirely independent of THE ARGUMENT FROM THE STATUS, which has played so large a part in the controversial literature of the last twenty-two years; the argument, that is, drawn from the facts of prices, wages, and debts, as they existed at the time of the demonetization* of silver, or at any intermediate period. The two arguments which have now been stated had both been clearly and fully set forth, by eminent writers, before the great Fall in Prices began. They will still hold, and will constitute a powerful plea for the rehabilitation of the broken bimetallic system, even should the new South African gold-fields prove far richer than any one now imagines, and the new cyanide process of reduction prove so effective as again to bring

* Some monometallist writers are very much distressed by the use of this term, inasmuch as large amounts of silver are still used as money in Europe. Not the less is the term demonetization of silver properly applied to the series of measures by which that metal was denied free coinage, and was either reduced to become the material of fractional money solely, or was allowed to be coined only in limited quantity.

gold to the verge of a catastrophe, like that which threatened it in 1853.

THE INFLUENCE OF METALLIC INFLATION.

I have spoken of the general influence of the great production of gold, after 1850, upon trade, industry, and society, as, on the whole, in spite of individual cases of hardship, highly beneficial. The metallic inflation was most welcome, for it occurred at a time when commerce and production had for a long time been suffering from a money-supply either positively decreasing, or, at any rate, not keeping up with the world's needs in this respect. The age had been one of falling prices, with loud complaints, everywhere, of depression in trade and failure of employment. Never did parched ground respond more joyously to the first fall of rain after a long drought, than industry and trade responded to the new supplies of gold from California and Australia. The normal effects of an inflation of the money-supply of the world due to natural causes, and not to any purposed action of government in tampering with the standard of deferred payments, has been studied by some of the soundest and wisest of economists; and the general weight of their testimony bears strongly on the side of the advantages derived from such a cause. A natural metallic inflation carries with it no sting of injustice and draws no retribution after it, for it is due either to the discovery of new resources in nature or to improvements in human arts. Being, thus, free from the curse which attends an increase of paper money designed to scale down debts

and alter the standard of value, such an inflation can be looked at without prejudice. The subject is one susceptible of great exaggeration. It is also one which may be treated in a small and grudging way, with results as distinctly false to life as any that could be due to extravagance of view and of statement. The truth doubtless lies between the extreme claims of some, who have attributed more than a magical, an even miraculous, virtue to a natural increase of the money-supply, and the mean and parsimonious admissions of certain economists of the *à priori* order. But I believe that the truth lies much nearer the former than the latter line. The weighty argument of David Hume is the first which should be quoted in any discussion of this subject.

"It is certain that, since the discovery of the mines in America, industry has increased in all the nations of Europe, except in the possessors of those mines; and this may be justly ascribed, amongst other reasons, to the increase in gold and silver. Accordingly we find that, in every kingdom into which money begins to flow in greater abundance than formerly, everything takes a new face; labor and industry gain life; the merchant becomes more enterprising, the manufacturer more diligent and skilful, and even the farmer follows his plow with greater alacrity and attention. . . . To account, then, for this phenomenon, we must consider that, though the high price of commodities be a necessary consequence of the increase of gold and silver, yet it follows not immediately upon that increase; but some time is required before the money circulates through the whole state and makes its effects to be felt on all ranks of people. At first no alteration is perceived; by degrees the price rises, first of one commodity and then another, till the whole at last reaches a just proportion with the new quantity of specie which is in the kingdom. In my opinion it is only in this interval, or intermediate situation, between the acqui-

sition of money and rise of prices, that the increasing quantity of gold and silver is favorable to industry. When any quantity of money is imported into a nation, it is not at first dispersed into many hands, but is confined to the coffers of a few persons, who immediately seek to employ it to advantage. . . . It is easy to trace the money in its progress through the whole commonwealth, where we shall find that it must first quicken the diligence of every individual before it increases the price of labor." (Essay on Money.)

In the foregoing remarks, Hume understates the advantages of a metallic inflation. In addition to all which he alleges, there is the important consideration of the effect of such a cause upon the burden of existing indebtedness, both public and private. The world is always in bonds to the generations that have preceded. The industry, the activity, the enterprise, of the generation upon the stage are heavily weighted by obligations to the past. These obligations cannot be repudiated, they cannot be intentionally lightened by act of government under impulse from the debtor class, without social and economic retributions which will produce a mischief far outweighing any benefits which may be in view in such ill-advised measures. But when this effect, in no revolutionary degree, is brought about by natural means, I believe it to be wholly beneficial. That the great silver discoveries of the sixteenth and seventeenth centuries, diminishing the weight of feudal burdens, cutting down the effective revenues of existing dynasties, and reducing the weight of obligations derived from the past, had an influence, wholly in addition to that mentioned by Hume, not only in extending commercial activity, but in lifting society and industry up to a new and higher

plane, seems beyond question. To show that this view is not without the support of recognized economic authority, I quote the language of M. Chevalier, the first of French economists, and of J. R. McCulloch, one of the most conservative of the English school.

M. Chevalier says: "Such a change will benefit those who live by current labor; it will injure those who live upon the fruits of past labor, whether their fathers' or their own. In this it will work in the same direction with most of the developments which are brought about by that great law of civilization to which we give the noble name of progress." Mr. McCulloch has perhaps taken even stronger ground. He declares that, "while, like a fall of rain after a long course of dry weather, it may be prejudicial to certain classes, it is beneficial to an incomparably greater number, including all who are actively engaged in industrial pursuits, and is, speaking generally, of great public or national advantage." With reference to this statement of Mr. McCulloch, Prof. Jevons (1863) remarks: "I cannot but agree with McCulloch that, putting out of sight individual cases of hardship, if such exist, a fall in the value of gold must have, and I should say has had already, a most powerfully beneficial effect. It loosens the country, as nothing else could, from its old bands of debt and habit. It throws increased rewards before all who are making and acquiring wealth, somewhat at the expense of those who are enjoying acquired wealth. It excites the active and skilful classes of the community to new exertions." (Investigations in Currency and Finance, pp. 96, 97.)

CHAPTER VI.

DEMONETIZATION.

IN 1867, Napoleon III. summoned all nations and peoples to contemplate and admire the mighty capital which he had built. Among the features of the International Exposition, which was intended to illustrate the glory of the Second Empire and to demonstrate its predominant influence over the politics of Europe, was a Conference, called by France, to consider the world-wide Unification of Coinage. For some years previous, there had been a certain speculative interest in this question. There were in every land a few men who devoted themselves to the propaganda for international money. Unification of coinage had become somewhat of "a fad" with a class of writers. At the present time there is not a tenth part as much regard for the subject as there was thirty years ago. Who troubles himself, to-day, about the unification of moneys? In part, this decline of interest is due to the fact that the political consolidation of Germany and of Italy removed no inconsiderable share of the grievances of which travellers had been accustomed to complain, arising from the great diversity of currencies with which they were confronted on

even a short tour.* In greater part, the result is due to the apprehension, by the public mind of Europe and America, of the idea that what the world wants is, not international coins, but an international standard of value. The thoughtful remarks which, in a previous chapter, were quoted from Prof. Foxwell,† regarding the importance of the external valuation of currencies, as distinct from the problem of their internal parity, apply with much force to this change of public sentiment. But, as has been said, for some years before 1867 there had been not a little discussion of the question of international coinage; and occasion was taken of the holding of the great Exposition to assemble representatives of the leading powers to consider this subject. Twenty states responded to the call, counting as two Norway and Sweden, though under a common crown; and were present by delegates, some of high intellectual rank. The Conference had not proceeded far before it came to be acknowledged that no successful result could be reached unless one or the other of the two precious metals were to be sacrificed. At this point, the best thing the Conference could have done was to adjourn, *sine die*, leaving its members, severally or in groups, to remain awhile, see the Exposition, buy some things for their families, and then go home and report to their respective

* "Twenty years ago each of the Swiss Cantons actually had such separate coinage; and, what was worse, the coins of the same name and much the same look had different values in adjoining cantons. *Batsen* were one thing here and another there." (Bagehot, *A Universal Money*, p. 16,

† pp. 105-6.

governments. But whether it was out of a shrinking from such "a lame and impotent conclusion," and a desire still to do something, or seem to do something, or whether it was out of complaisance to the Emperor, the Conference went forward, though in a changed direction; and addressed itself to the problem of an international coinage upon the basis of a single metal. It is impossible to believe that many of the delegates could have taken this seriously. Certainly, some of the very individuals concerned no sooner saw the mechanism they had set up actually begin to operate than they were seized with terror, and devoted their remaining energies, through all their lives, to undoing or checking the mischief thus brought about. Few states whose delegates took part in this expensive game but would, to-day, be glad to see the condition of things which existed in 1867 brought back at almost any sacrifice.

Having decided, or, if that expression is too strong, having allowed themselves, to go on with the scheme of international coinage upon the basis of a single metal, the Conference, naturally enough, fixed upon gold as that metal. The enormous production since 1851 had created the general impression that gold was to become highly and permanently abundant; and the members of the Conference seem to have been so thoroughly imbued with this idea that only one, Mr. Mees, of Holland, thought it necessary to raise the question whether there was a sufficiency of that metal to justify the throwing overboard of silver. This all-important step having been decided upon, with an ease and lightness which are to-day matters of amaze-

ment, the Conference had no difficulty in proposing a scheme of international coinage which reads very prettily in the report, and would be very nice in Utopia. A unanimous result was reached, amid general congratulation; and the Conference of 1867 passed into history. The tone in which the subject had been dealt with may be judged by the following extract from the report made by Mr. Samuel B. Ruggles, who represented the United States on this occasion, to the Department of State:

"The establishment of a single standard exclusively of gold is, in truth, the cardinal, if not the all-important, feature of the plan proposed by the Conference, relieving the whole subject, by a single stroke of the pen, from the perplexity, and, indeed, the impossibility, of permanently unifying the multiplicity of silver coins scattered through the various nations of Europe. It is a matter of world-wide congratulation that, on this vital point, the delegates from the nineteen nations represented in the Conference were unanimous."

Does it seem credible that any body of intelligent men could have approached the question of demonetizing silver in such a light and airy way? Looking back upon the twenty-three years which have elapsed since the first practical step was taken to carry out the recommendations of the Conference of 1867, years full of agitation and disturbance in industry and trade, at the end of which the world is less reconciled to gold monometallism than at the beginning, while bimetalism stands far more strongly supported by economic opinion than ever before; it is pertinent to remark that, if the Conference had given itself the trouble of making a second stroke of the pen, and had even indulged in that "sober second-thought" which is to

be commended to all who deal with human policies and institutions, the result might have been happier. I deem it not unfair, though it sounds somewhat harsh, to say that the character and purpose of the Conference of 1867 may be judged by the single fact that Mr. Ruggles represented the United States on this occasion. Had the people of this country really intended to take part in the serious discussion of a question of such an immense and far-reaching consequence, not one man, but a delegation of men, and men of a high order of statesmanship and intellectual power, would have gone to Paris. Gone to Paris, did I say? Mr. Ruggles did not even go to Paris for that purpose. He was already there, as the United States Commissioner to the Exposition; and, to save the expense of sending a delegate to the Conference, was empowered to act in that capacity.

One of the most common charges made against bimetallicists, throughout the recent controversy, has been that they are theorists. This is a phrase which has done much service. But I know of nothing throughout the whole range of bimetallic literature which is so thoroughly academic, theoretical, and idealistic as the discussions in the Conference of 1867; nothing so completely devoid of practical considerations and of all reference to the facts of life and industry. The action of the Conference was had in perfectly cold blood. No necessity for doing anything, whatever, pressed upon its members. It had been called for the purpose of dealing with the problem of international coinage; and it was only when it found progress in that direction blocked that it took up a question which was of in-

finitely greater consequence, and declared in favor of uprooting silver in countries embracing a thousand million of human beings where it had immemorially been used. Mr. Ruggles's "single stroke of the pen" is likely to occupy the same place in monetary history which M. Ollivier's equally felicitous and appropriate phrase about going into the German war "with a light heart" occupies in political history. In each instance, measures the most momentous, fraught with the direst disaster, were undertaken in the most trifling spirit and with an entire absence of consideration for the practical difficulties of the situation. People who go into war "with a light heart" are likely to come out with a heavy one: financiers and currency-tinkerers who, "with a single stroke of the pen," undertake to order up a new monetary system for the universe are likely to find that human nature is a very real and tough thing; and that the habits, instincts, traditions, and prejudices of a thousand millions of men are facts it is well enough to take account of at the outset.

The charge brought against bimetallists of being unpractical and idealistic may be retorted to its entire extent and with tremendous force, upon those who bring it. The bimetallists of to-day stand upon the ancient order. Universal monometallism is the new and untried thing. Bimetallism is the old and well-approved monetary system of mankind. We know what bimetallism is and what it will do. The method of its operation, the nature of its effects, are well known, and can be studied historically and statistically, upon a wide scale. No one knows what universal monometallism would be, or what it would

do. Such a thing never existed. During the past twenty years the world has made rapid progress in that direction; but the end is still far distant, and no one can say what that system would be, and what effects it would produce. Monometallism is only half born. The twenty-three years during which it has been trying to make its way into the light have been years of unparalleled commercial disaster and disturbance; and at the end of that painful period, leading gold monometallists, like Sir Robert Giffen, declare that the system cannot possibly be extended to India and the further East*; or, like Soetbeer and Lexis, of Germany, declare that it has already gone too far in Europe and that a portion of the ground must be retraced. On the other hand, bimetallism has a long record of beneficent activity in promoting the stability and regularity of trade and production. Therefore it is not true that the presumption is in favor of our opponents, and that the burden of proof rests on us. Exactly the opposite of this is the case. Monometallism is fairly subject to all the incredulity and doubt which attach to new schemes of far-reaching extent, proposed by theorists and idealists for popular acceptance.

* Sir R. Giffen, before the Royal Commission on Depression in Agriculture, refused to discuss the question of India having gold money, declaring that it was simply impossible.

Ans. No. 18,348. "I do not think it is possible for India to have a gold standard."

Ans. No. 18,349. "I am quite unable to do so, because I do not think the thing could be done at all."

Ans. No. 18,350. "My own opinion is that you could not do it at all."

Again, bimetallists have been popularly charged with desiring to "tinker the currency." What was it the monometallists did at Paris, in 1867, when they decreed, so far as in them lay, that silver should, by act of government, by force of law, be thrust out of the place it had immemorially occupied in the currencies of the world, and gold be foisted, by act of government, by force of law, upon countries where it had never been known as money? Absolutely no necessity existed for the change at the time. The single professed object of the Conference, in thus proposing to "tinker the currency," was to secure a metrical and mathematical unity of coinage throughout the world, a result which is further off now than it was then. For the sake of a purely ideal object, the Conference of 1867 proposed to revolutionize the monetary system of the world.

It has been said, in defence of the Conference of 1867, that that body only "registered the decree of nature." The facts strongly contradict such an assertion. For fifteen years, the average annual value of gold had been below that of silver, according to the French ratio; and it was only in the very year of the Conference, 1867, that gold rose above that ratio, and that by only seven points, namely, to 15.57, or less than one in two hundred. In 1868 it rose only to 15.59; in 1869, only to 15.60; while in 1870 and 1871 it fell back to 15.57.* Even had the commissioners known what was to be the ratio of the year in which they met, even could they have foreseen the ratios of

* See page 176.

the four years following, what inference could they have drawn against the continued use of silver, in the face of the fact that, for a longer period, the ratio had been, in a larger degree, upon the other side of the line of 15.50? How could the commissioners know, how could the wisest man know, that a turn of the tide, such as had more than once taken place, might not, in any year, bring gold again below the line of 15.50? And why, meanwhile, might not the French system, reinforced, or not, by other States of great commercial and financial power, have continued to do its beneficent work, and even more abundantly? I repeat, there never was anything more academic, more purely theoretical, more intensely idealistic, more against the laws of nature and the constitution of human society, more in the nature of "tinkering the currency" and imposing arbitrary conceptions upon the races of men, than the proceedings and the proposals of the Conference of 1867. That body completely disregarded the facts of history and the structure of trade and industry. It took no account of the division of the world into two great groups of nations, one using gold and one using silver. It treated with contempt the instincts, the habits, the traditions of nations comprising a thousand million people, the rate of their wages, their ruling prices, the scale of their exchange transactions. It proposed to rewrite history and reconstitute society in its industrial and financial characters.

Weak as we now see the whole work of the Conference of 1867 to have been, its recommendation of gold monometallism could, nevertheless, not fail to exercise

great influence upon public sentiment. That is the price at which men who ought to know better meddle in matters of infinite consequence "with a light heart," and attempt to settle them "by a single stroke of the pen." The unanimous adoption of such a recommendation by a Conference, in which twenty nations were represented, from that time onward constituted a powerful argument in the hands of those who, in France, Germany, and Belgium, had long been writing and speaking in favor of the single standard of gold. And yet the battle was far from won. Although the discussions in the Conference had gone on swimmingly, and the report had been adopted amid a buzz of mutual congratulations, this had only been because the difficulties of the subject were not allowed to come at all into view, possibly because the Conference did not take itself seriously. But such a suppression of the real problems of the situation within the Conference could not keep them down in the public mind. No sooner were the recommendations submitted to the people than the genuine discussion of the subject commenced. A local French Commission had, earlier in 1867, decided in favor of the retention of the bimetallic system. But, just as the calling of the Conference had been for the glorification of the Empire, so, now, the work of the Conference was deemed by many to be in a measure connected with its prestige. A new Commission was summoned; and, by a majority vote, recommended the adoption of the single gold standard. Still the practical sense and the solid experience of the French people asserted themselves. The men who controlled the Bank of France were not to be dazzled

by the imperial dream of a monetary millennium in which France should give a currency to the whole world. Those masterly financiers too well apprehended the consequences of a demonetization of silver, to allow themselves to be influenced by any glow of patriotic feeling or by the illusions of an impracticable monometallism. The whole course of public discussion had strengthened the bimetallic system. Not an argument in favor of the single gold standard had been brought forward which had not been presented in the Conference of 1867; but the objections which had then been glided over so smoothly came more and more strongly and abruptly into view. Towards the close of 1869, the *Conseil Supérieur de l'État* was summoned to take into consideration the question of the so-called double standard,* as against the single standard of gold. The members of that body, which was re-enforced for this occasion by several persons, publicists and officials, from the outside, were known to be predominantly in favor of the single standard of gold. But the financiers of the Bank of France would not allow themselves to be overborne without a protest; and M. Rouland, the Governor, and Baron Alphonse de Rothschild and others of the

* It should be said that the most authoritative bimetallist writers, while perhaps sometimes using the term from the force of habit, do not admit that the words "double standard" properly express the purpose and effect of bimetallism. That term is admissible only as contrasted with the single standard of gold or of silver. International bimetallism would establish a standard—one standard—the bimetallic standard—which would confessedly be more uniform, stable, and reliable than a standard of either metal alone.

Regents, offered a strenuous opposition, defending the law of the year XI against the aspersions that had been brought against it; maintaining that it had safely carried France through a great crisis and saved the world from a veritable monetary revolution; and asserting its superiority to the system of the single gold standard.* Baron de Rothschild declared that for the sake of avoiding obvious inconveniences, which he described as very trifling, it was proposed to destroy the link between the world's two moneys, and to make a revolutionary change in the money of the West; that the demonetization of silver would be the actual destruction of a portion of the world's capital; it would be ruin, involving not only French, but international, commerce in the most serious embarrassments.† “Had I,” he exclaimed, “to choose a system, with the experience we have, I should not hesitate to accept that of the double standard.” The monometallists, however, who were in a majority, would not be denied; and, in the result, by seventeen to six, a declaration in favor of a single gold standard was obtained. Yet the monometallists were seemingly as far as ever from attaining the practical accomplishment of their object. Discussion had only brought more strongly into view the real and serious objections which withstood such a revolutionary change of the monetary system approved by two generations of practical experience.

* “Dans ces dix dernières années, l'Angleterre a subi des crises bien autrement désastreuses que les nôtres.”

† “Ce serait détruire une portion du capital du monde : ce serait une ruine.”

THE ACTION OF GERMANY.

In 1870 hostilities with Germany began. For eighteen months France was trampled under the iron hoof of war. On the 18th of January, 1871, at Versailles, William was crowned Emperor of Germany; and before the close of the year, the Reichstag passed a law under which Germany was to pass over, from the single standard of silver to the single standard of gold. If there is one thing which more than all others arouses the ire of the monometallist, it is the intimation that war with France had anything to do with the demonetization of silver by Germany. Yet, after all, it hardly seems rational to deny that the connection existed. Aside from the remarkable coincidence of dates there is a little something, familiarly called human nature, which requires to be mentioned, though the subject is always an unwelcome one to the monometallist. Germany had, it is known, long been hesitating over the subject of its currency. So late as 1869, Mr. Bagehot had written: "Germany has a currency to choose; none of her many currencies, which have descended from her divided states, are fit to be her exclusive currency, now that she is one. If things remain as now, *she is sure to adopt the French currency*: already there is a proposal in the Federal Parliament that she should take it." (A Universal Money, p. 13.) Was or was there not something, or many things, in or arising out of the war of 1870-71 which would have a tendency to cause Germany to take action where she might otherwise have maintained her attitude of expectancy; and to take that action

in a direction different from that which she might otherwise have chosen? Let us see. In the first place, Germany was to receive from France, as a war indemnity, five milliards of francs, a billion of dollars in our money. This enormous prize of war furnished the means for a complete change of her currency system, the cost of which might otherwise have long deterred her from such a course, even if the sentiment of her statesmen and financiers had been unanimous in its favor, as was not the case. Secondly, the war had brought about the formal unification of Germany, by the accession of the Southern nations; while every German statesman, from the Emperor down, well knew that Particularism was still strong, and that the antagonisms, rivalries, jealousies, and animosities of generations could not fail to embarrass the movement to a true imperialism. The opportunity of securing a new coinage, opened up by the demonetization of silver and the adoption of the gold standard, must have commended itself strongly, from a purely political point of view, to every champion of imperial authority. Thirdly, the war had heightened the self-esteem and quickened the self-assertion of the German people. Such a marvelous triumph had naturally created lofty ideas of the resources and the destiny of Germany. That people would have been less than human, or more than human, if they had not suffered a great illusion in these respects. To a nation in such a mood, the suggestion of shaking off its association with countries using silver as their principal money, and passing over to those whose use of money of gold was popularly imagined to be a proof and evidence of

their greatness and wealth, could hardly fail to be very captivating. Finally, it is rather too much to ask us to believe that the sentiments of intense hatred and aversion, which war always enkindles among combatants, found no shade of gratification in the proposal to strike what, at the time, seemed a fatal blow at the financial prestige and influence of France by destroying the system which had been set up by the great Napoleon himself, only three years before Jena. Few of us claim to be so good as to be wholly unsusceptible to international prejudices and animosities. It was the French system, the Latin system, which was thus to be broken down by the champion of Pan-Teutonism. ✓

For the foregoing reasons, I must regard the Franco-German war as having had a great deal to do with the demonetization of silver. I am aware that in Germany, as in France, there had long been a party, having for its leaders Herr Delbruck, Herr Bamberger, and Dr. Soetbeer, which urged the policy of gold monometallism; yet I believe it to be a reasonable statement that, but for the breaking out of hostilities, Germany would for years have delayed any action to that end, perhaps to the time when some less selfish and individualistic treatment of the subject would have become possible. Even that ferocious monometallist, Mr. W. A. Shaw, who deems bimetallism a "malignant" and a "pernicious" thing, admits that the war and the consequent erection of the Empire, "enormously facilitated the process." He says this "cannot for a moment be questioned."

The monometallists, disclaiming, as I have said,

the influences arising from the war and from the results of the war, as having had anything to do with the action of Germany, have been wont to speak of that action as taken "in obedience to the laws of trade." Here, as in respect to England in 1816, they are fond of declaring that legislation but registered the decrees of commerce, or responded to a popular demand. They point to the change in the ratio between gold and silver, which, as already stated, began in 1867, as conclusive on this subject. Yet, as has been shown, while gold did, indeed, after ruling for fifteen years below the French standard, then pass above it, the difference in its favor was still very slight, far slighter than had been the differences in favor of silver for so long a term. That difference might, at any moment, be neutralized by a change in the conditions of production, such as more than once occurred during the century. But even supposing these differences to persist, or to increase, there was nothing in them which was incompatible with Germany retaining her silver money, or with France continuing to perform that beneficent function for the trade and industry of the world which she had carried on for seventy years.

The demonetization of silver by Germany, which was first decreed by the law of December 4, 1871, and was finally carried out under the Act of July 9, 1873,*

* Meanwhile, Norway, Sweden, and Denmark had concluded a monetary treaty in 1872, which was ratified by Sweden and Denmark in 1873, and by Norway in 1875, for the adoption of the single gold standard. Holland in 1875 adopted a nominal "double standard" of gold and silver; but the actual coinage of the latter metal was prohibited. In 1876 Russia suspended the coinage of

brought about a situation of the most momentous consequence to France. By this measure Germany passed definitively over, from the States which had the single standard of silver, to the ranks of those which had the single standard of gold. Up to this time Germany had been one of the largest consumers of silver. Not only was she to cease for the future to create a demand for that metal, now tending to become cheaper than by the French ratio, under the yield of the Nevada mines; but she threatened, in this very act, to become a seller of silver. The latter metal was, indeed, still to be used in fractional money; but it was provided that the amount of silver coined should not exceed 10 marks per head of the population, and that no individual need accept more than 20 marks of imperial silver coin in any one payment. It was estimated that the provisions for carrying out this measure would throw upon the market a vast amount of the discarded metal.* Not only so: Germany was to enter the market for gold as a large purchaser, to obtain the material for the new imperial coinage.† France had, as we have seen, long kept the

silver except of "trade" coins for use in China. Austria suspended silver coinage in 1879.

* "In carrying out the monetary reform there was sold, up to the end of March 1893, 7,205,151 pounds fine, the product of the melting of silver coins of a nominal value of 672,862,729 marks." (Silber Kom. 1894. Drucksache, vi. p. 7.)

† To the end of 1893, Germany had coined, net, of gold, since the establishment of the Imperial system, 2,734,462,700 m.; of this no less than 1,015,837,020 in the two years 1872 and 1873. (Silber Kom., 1894. Drucksache, vi. p. 3.)

monetary peace of the world by buying the metal which fell, and selling the metal which rose. Germany was now to enter, to make the task of France more difficult by selling the metal which was falling, and buying the metal which was rising. Standing midway, both financially and geographically, between the great gold-standard State of England and the great silver-standard State of Germany, France had been able to perform her function of the exchange of the metals, in a way to preserve substantial equilibrium throughout seventy years. The abrupt passage of Germany from the ranks of silver-using countries to those of the gold-using countries appeared, even to those who had kept their faith and courage through the great Californian and Australian panic, to threaten the downfall of the French system. It was under these circumstances that France took the first fatal step towards checking the coinage of silver. This was done by extending the period of the receipts—*bons de monnaie*—which were given at the mint for bullion delivered. The usual term of these receipts, which were transferable and discountable, had been ten days. To meet the apprehended danger from the arrival of discarded German silver, the “due-dates” of these receipts were postponed, while the amount which could be issued daily was restricted. These measures became, of themselves, a sufficient cause for a further fall in the price of silver; and the mint was obliged to protect itself by successive extensions of the term of the receipts, that is, by postponing the “due-dates,” more and more, till, by the middle of 1874, that term had reached nine months, that is, the government

would only undertake to return five-franc pieces in April of 1875, on account of bullion deposited in July of 1874.

If it be asked why, if the statesmen and financiers of France really believed in the bimetallic system, they did not, in this new crisis, thus suddenly developed, stand by their guns and maintain their monetary system, it is to be answered, first, that the efficiency of that system has always been admitted to be wholly a question of proportion, a matter of degree; and the action of Germany, above recited, turned the scale against the bimetallic system with a force which, it was then not unreasonable to believe, could not be resisted. Secondly, France was in a most pitiable case, as the result of the war she had so senselessly provoked. The waste of her accumulated resources had been enormous; her productive energies had been crippled; two of her fairest provinces had been lost to her; and she was compelled to pay the monstrous sum of five milliards of francs, as an indemnity to Germany. Thirdly, France had no greater interest in the bimetallic system than any other nation of Europe, except as a holder of coined silver; and, indeed, her interest was smaller than that of some, by reason of the slight commercial importance of her colonial possessions.

It has been asserted by many monometallist writers that a distinct fall of silver preceded the closing of the French mints. It appears to me that Mr. Hucks Gibbs, in his article in the British *Economic Journal* of March, 1891, has shown this statement to be unfounded, at least so far as any appreciable decline in the price is

concerned.* But, even if it were so, the threat of German demonetization would sufficiently explain the effect.† It is, moreover, to be said that France, by entering the Latin Union, had in some degree compromised her independence and freedom of action. Two of the States of the Latin Union, Belgium and Switzerland, had long been, in a considerable degree, well affected toward gold monometallism; and the natural desire of France to maintain her political and financial prestige among the Latin countries made it impossible for her to deal as peremptorily with the subject as if she had been obliged to consider only the views and wishes of her own people.

The first fatal step having been taken in the restriction of silver coinage, others followed by an almost irresistible necessity, until the result was reached of an absolute cessation of such coinage upon individual account, the several governments of the Latin Union binding themselves to coin silver only in definite proportions. That state of things has continued practically until the present time. The bimetallic law has

* "There was, indeed, a fall of price before the suspension of the law, viz., from 60.25d. in April 1872 to 59.75d. in May 1873—that is to say, a gradual decline over a period of thirteen months, to the extent of $\frac{1}{4}$ d. per ounce. It is true, also, that apprehension of what would follow, if the Mint were to be closed, caused the price to fall nearly another $\frac{1}{4}$ d. in the ensuing three months; but when the suspension of the Mint law really began, the price fell another 1d. by December 30th, and declined *pari passu* with the further suspension; and it both fluctuated violently and fell rapidly when the Mint was finally closed and the barrier which prevented a further fall was broken down."

† "The actual efflux of gold to Germany commenced in the year 1871." (Giffen, Herschell Commission, 1887, No. 489.)

not been repealed; but the suspension of silver coinage has substituted for the so-called double standard what it has pleased writers on the subject to call the "limping standard." The five-franc pieces of silver are still legal tender in unlimited amount; but the number of these pieces cannot be increased by new coinage; and, consequently, through the steady operation of wear and tear and accidental loss, the proportion of gold in the monetary circulation has continually increased. Even in the Bank of France the reserve has greatly changed. In 1881 the Bank held gold to the amount of 22 per cent of its note circulation, and silver to the amount of 48 per cent of the same. In January of 1896 the corresponding figures were, respectively, 58 and 34.

The causes that have been recited led to immediate changes in the relative values of the two metals, which, though they have been frequently cited as showing the impossibility of bimetallism, are really, to any candid and intelligent mind, the strongest proof that could possibly be afforded of the power which that system is capable of exerting. We have seen how small and narrow was the range of the effects in this direction resulting from the overwhelming change in the conditions of production through which the proportion of gold to silver in the annual output increased fifteenfold in forty years, and fivefold in four years. We have seen how closely, even after gold rose above the line of 15.50, it still held to that line. In 1867, the year in which the International Monetary Conference of Paris recommended the universal demonetization of silver, the annual average ratio was 15.57; in 1868 it was

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15.59; in 1869, 15.60; in 1870, 15.57; in 1871, still again 15.57; in 1872, even after the adoption of the provisional act of demonetization by Germany, the average annual ratio was 15.63. If Mr. Horton was right in holding that, when the charge for mintage under the Act of 1854 was taken into account, the price of silver which the bimetallic law was calculated to maintain was, not 15.50, but 15.58, these figures of the average annual value of gold, in terms of silver, become even more remarkable. But, as soon as the action of Germany had become definitive, rapid and overwhelming changes took place. Although the law of 1873 was passed only in July, the average annual ratio of that year was 15.92. In 1874 it became 16.17; in 1875, 16.59; in 1876, 17.88. In July of the latter year it was 19.59. The effects of such a fall in silver were immediately felt the world over. The bimetallicists, of course, attributed that fall to the political acts of Germany and the Latin Union, which have been recited, and attached little importance to the increase in the yield of silver, which had, according to the *Journal des Économistes* tables, risen, from an average of about 50 millions of dollars, during the period 1863 to 1870, to an average of about 66 millions, for the five years following. The gold monometallists, on the other hand, either denied or disparaged the influence of law in this matter, attributing the result almost wholly to natural causes, such as the lower cost of producing silver, or to commercial causes, such as the increasing use of gold in the arts, and the reduction of silver exports to India, which at this time had become very noticeable, mainly in consequence of the

general famine in that country. The panic of 1873 and the long and critical period of hard times which followed, were, by the bimetallists, attributed to the demonetization of silver; the monometallists declared these to be the natural result of the preceding period of speculation and inflated prices.

Under commercial and financial stresses and strains, such as those of 1873 to 1876, the light and easy treatment of the question of the use of gold and silver as money became impossible. The policy of effecting monetary reforms "with a single stroke of the pen" became suspected. The most stormy controversy of monetary history broke out about 1875, and has continued to rage ever since. In 1876 the House of Commons appointed a Select Committee on the Depreciation of Silver; and in the same year a United States Commission took testimony and published a report on the whole subject of Bimetallism. These were the first of a long series of monetary investigations and conferences which we shall have occasion to consider in the two following chapters. It is safe to say that, in spite of the partisanship, extravagance, and exaggeration which have characterized the discussion, on both sides of the question, monetary science owes more to this period than to all which preceded it. One has only to compare, book in hand, the earlier inquiries with the reports of the Herschell Commission, for example, to see how great has been the advance in the comprehension of the principles of trade and finance, in the criticism of monetary statistics, and in the application of the best results of advanced economic thinking to the problems

of money. It never can cease to be a subject of regret that three of the wisest and soundest of English economists should have been prematurely cut off so early in its course. What would we not give, whether monometallists or bimetallists, to have had Cairnes, Bagehot, and Jevons participate in the later phases of this great debate! Of the Inquiries of 1876 we may speak at this time, for they are to be regarded rather as pertaining to the period of demonetization than to the period of discussion which ensued. While the reports contain some expert testimony of high value, on matters which have been more thoroughly and carefully gone over in subsequent investigations, they are chiefly interesting to us, to-day, as exhibiting the surprise, the pain, the alarm, and the indignation which were occasioned, in the public mind of both continents, by the first effects of demonetization.

In March, 1876, the British House of Commons appointed a Select Committee to report upon the Causes of the Depreciation of the Price of Silver and the Effects of such Depreciation upon the Exchange between India and England. It will be seen that the scope of the Committee's authority was narrow. They were neither directed to report as to measures to be adopted, in remedy or redress for any grievance which might be found to exist; nor to investigate the general economic influences of the depreciation which was assumed to have taken place; nor even to inquire whether silver had fallen in relation to commodities. The work of the Committee was limited to the causes of the depreciation of silver in terms of gold, and to the effects of this upon the Indian exchange.

To that view of their functions the Committee held strictly. In their report they say the questions referred to them "did not include an investigation as to what measures, if any, legislative or administrative, might be contemplated as expedient or necessary under the circumstances."

The Committee was presided over by Rt. Hon. George J. Goschen, a practical banker, the author of a most meritorious work on Foreign Exchanges, and of other important economic and financial essays and reports, and, since that time, member of more than one cabinet in the government of England. Among the members were Prof. Fawcett, Mr. Baxter, Mr. Hubbard, and Mr. Cave. Within the scope of their commission, the Select Committee examined a number of witnesses, among whom were Mr. (now Sir) Robert Giffen, Mr. Bagehot, Mr. Ernest Seyd, Mr. Peitsch, Mr. Pixley, and Sir Hector Hay. The findings of the Committee were as follows:

"That the fall in the price of Silver is due to the following causes:

"(1) To the discovery of new Silver Mines of great richness in the state of Nevada.*

"(2) To the introduction of a Gold currency into Germany in place of the previous Silver currency. This operation commenced at the end of 1871.

"(3) To the decreased demand for Silver for export to India. It should be added—

"(4) That the Scandinavian Governments have also substituted Gold for Silver in their currency.

* The Comstock Lode was discovered in 1859; the Belcher Bonanza in 1864; the Chollar-Potosi in 1865; the Hale & Norcross Bonanza in 1866. (H. L. Nelson, Sound Currency Tract.)

"(5) That the Latin Union, comprising France, Belgium, Switzerland, Italy, and Greece, have since 1874 limited the amount of Silver to be coined yearly in the Mints of each member of the Union, suspending the privilege formerly accorded to all holders of Silver bullion, of claiming to have that bullion turned into coin without restriction.

"(6) That Holland has also passed a temporary act prohibiting, except on account of the Government, the coining of Silver, and authorizing the coining of Gold." (p. iv.)

The Committee did not undertake to weigh nicely the proportional share of each of these several causes, but in a separate paragraph group them as follows: "It will be observed that two sets of causes have been simultaneously in operation. The increased production of the newly-discovered mines, and the surplus silver thrown on the market by Germany, have affected the supply. At the same time the decreased amounts required for India, and the decreased purchases of silver by the members of the Latin Union, have affected the demand. A serious fall in the price of silver was therefore inevitable."

A great deal of importance was attached to the recent increase of silver production in the United States. At the time the German Government took its action, and even at the time when the French mints interposed a nine months' delay between the receipt of bullion and its coinage, that increase had not become portentous, the rise being from about 50 millions for the average of eight years closing in 1870 to about 66 millions for the average of the five years next ensuing. But immediately after 1875, silver production took a great leap upwards, the figures being for 1876, the year in which the Select Committee sat, 91

millions. It was natural, therefore, that such an increase, though by no means equal to that which had taken place in the production of gold at the middle of the century—five-fold in four years—should greatly impress the minds of the witnesses and of the Committee; and it was not unreasonable that they should anticipate a still further increase, which in fact became the case, silver production passing the 100-million mark in 1882.

But while, as has been said, it was not unnatural that this expectation should influence the minds of the Committee, we see at this stage of monetary discussion, just as we saw in the preceding epoch and as we have lived to see it again, a failure on the part of nearly all economic thinkers to do justice to “the modesty of nature”—that principle which, operating universally throughout human life, prevents things from ever becoming as good as it was hoped they would be, or as bad as it was feared they would be. In regard to no other human interest than the one under consideration does this principle seem to apply with greater force. Owing to the nature, the mode of occurrence, and the distribution of the deposits of the precious metals, we have within our own century witnessed several successive instances of the arrest or the gradual or even abrupt decline of production, after short periods of intense activity.* No such confidence

*“So far as bimetallism in the past goes, one must recollect that the bimetallic scheme was extremely fortunate in having new supplies alternately of gold and silver; and I quite admit that the fixed-ratio mintage [see p. 206, *post*] can be sustained permanently if the mines will only obligingly yield us gold and silver alternately.”

in "the modesty of nature" relieved the apprehensions of the economists and financiers of Europe during the continuance of the great flood of gold. Even in 1876, it seemed to the vast majority of intelligent men that silver might continue indefinitely to increase. We, however, have lived to see its production checked, and gold again come to the fore. So well is this now understood to be the most probable result, in any case of exaggerated production of one or the other of the money metals, that we find a great economic geologist like Dr. Suess, of Vienna, confidently allowing the South African fields of to-day somewhere between fifteen and twenty-five years of maximum activity.*

Regarding the second inquiry assigned them, namely, the effects of the depreciation of silver upon the Indian exchange, the Select Committee gathered much evidence and reported with great fulness; but the aspects of the subject thus presented are of far less

(Marshall, Herschell Commission, 1888, No. 9730, p. 11.) For the reasons given in the text, I am not disposed to look on these alternations in the production of the precious metals as mainly a matter of "fortune." I look at them, the rather, as occurring through the nature of things.

* "We are on the eve of an increase in the production, which may last ten, fifteen, or even twenty-five years. Perhaps it may not last longer than the maxima of the Californian and Australian production, because mining, though more extended, is now pushed forward more energetically." (Letter to Dr. Otto Arendt.) After referring to Dr. Suess' views regarding the future production of gold, Mr. L. L. Price (*Economic Journal*, Dec. 1895, p. 566) says: "The fact is that all prediction of the future is slippery, and that it is precisely because it is slippery that bimetallism recommends itself as furnishing a standard more stable than that of monometallism."

interest to Americans than to Englishmen. We shall, at a later period, see the effects of the depreciation of silver upon exchange with Eastern nations, as influencing their production and trade, occurring in a form more interesting to us than the loss of revenue to the alien government of India, or the griefs of ex-Indian Civil Servants and retired military officers living on silver pensions at home. I will quote only one paragraph from the evidence given before the Committee. It is a statement of Mr. Walter Bagehot:

"A great number of States which are grouped together in what is called the Latin Union have ceased to coin silver, ever since the year 1874, in the same manner which they did before.

... If it had not been for that change of policy, all the silver which is now flooding the London market and lowering the price would have been long since in the mints of those countries; it would have released gold from them, and the combined effect of the two operations would have been, that *the comparative value of gold and silver would have been very little altered, probably not at all.*"

THE UNITED STATES AND DEMONETIZATION.

Turn we now to the United States. The project of an international money had long possessed a certain attraction to the minds of many Americans, both economists and statisticians in private life and statesmen in public office. We have seen that Mr. Ruggles advocated the cause of gold monometallism at Paris in 1867. He laid before the Conference a letter from the Hon. John Sherman, of Ohio, in which similar views were presented. At, I think, the next succeeding session of Congress, Mr. Sherman presented a measure intended to carry out the proposals of the

Conference, which, however, did not become a law. Ever since 1862, the United States had been under the régime of inconvertible paper money. Neither gold nor silver was in circulation, to any appreciable degree. The interest of the people in the question of the relations between gold and silver in the coinage was at a minimum, alike from the cause just referred to and from the impatience characteristic of Americans which leads them to take up subjects with great fervor and drop them after a while with complete indifference. In 1873 a revision of the coinage laws of the United States was undertaken by Congress.* By an act of February 12, the dollar-piece was omitted from the list of silver coins. This is known to Free-Silver men as "The Crime of 1873." The act of 1873 did not take away the legal-tender power of any silver dollars actually in existence. By an act of June, 1874, however, giving effect to a revision of the general statutes, the legal-tender power of all silver coins was restricted to an amount not exceeding \$5 in any one payment. Regarding the allegation that the result above described was due to a combination of rascally contrivance and rascally connivance, I refer to my article in the *Chicago Journal of Political Economy*, March, 1893. I quote the following paragraph:

"But, while I am thus disposed to discredit the allegation of fraud and of sinister motive, so bitterly urged by the silver men, it not the less seems to me that they have a grievance. No man in a position of trust has a right to allow a measure of such importance to pass without calling attention sharply to it, and making sure that its bearings are fully comprehended. And

* Movement in this direction had been in progress since 1870.

no man who did not know that the demonetization of silver by the United States was a measure of transcendent importance had any right to be on such committee or to put his hand to a bill which touched the coinage of a great country. Every one knows that but few members upon the floor of Congress read the text of one in twenty of the bills they have to pass upon; and it is the duty of the committees dealing with any class of subjects to see to it that every proposed change is fully explained and that the attention of the House and of the country is fairly called to it. They are not discharged of their obligations simply by giving members an opportunity to find it out for themselves. If this be a requirement of ordinary political honesty, much more is it the dictate of political prudence. An important change in the money or in the industrial system of a nation, if effected without full and free and thorough discussion, even though no surprise or concealment be used, is almost certain to be subsequently challenged. 'Things,' says Bacon, 'will have their first or second agitation: if they be not tossed upon the arguments of counsel, they will be tossed upon the waves of fortune, and be full of inconstancy, doing and undoing, like the reeling of a drunken man.' "

But if the legislation of 1873 and 1874, regarding silver, passed without popular observation, it was destined to receive a full share of public attention a little later. As the effects of demonetization upon prices came to be more and more evident, an agitation began which has continued, with little abatement, to the present time. The silver question became a disturbing element of great force in American politics. Unquestionably the vast majority of the people regretted the demonetization of silver and desired its restoration to the rank of a money metal with full power; while the timidity characteristic of professional politicians caused many to range themselves on this side without regard to their convictions. In 1876

Congress provided for the appointment of a Commission to investigate the subject. Three Senators and three Representatives, with Prof. Francis Bowen, of Harvard College, and Mr. W. S. Groesbeck, of Cincinnati, made up the Commission. Prof. Laughlin says it was "packed" to secure a report favorable to bimetallism. Considering the large majority in each House of Congress favorable to that object, the use of the term hardly seems appropriate. The work of the Commission does not require any extended notice. The matter was passionately discussed; most of the evidence taken fell, in breadth of knowledge and in appreciation of economic laws, below that presented in investigations we shall have later to consider. The majority report, which was strongly bimetallist, was not of an especially commanding character. The minority report, signed by two members, Prof. Bowen and General Randall Gibson, contains a perfectly respectable statement of the monometallist view. Ex-Gov. Boutwell, of Massachusetts, presented a brief report, dissenting from the general opinion of the Commission and urging that a conference of the nations be called, to take the subject into consideration. But, while we cannot assign any high rank to the American report of 1876, as a discussion of the large and difficult questions at issue, it had the effect of arousing public attention and initiating a popular agitation which did not cease until, in 1878, an Act of February 28th, commonly known as the Bland bill, but more properly as the Allison bill, remonetized the silver dollar and provided for the coinage of a minimum of two million, a maxi-

num of four million dollars' worth of silver bullion per month. The President was empowered to invite other nations to meet in conference, to consider the relations of gold to silver. The proceedings of this conference will begin the next chapter.

A word regarding the Bland bill. The remonetization of silver in 1878 was just and proper, from the point of view of the bimetallist. If the people of the United States did not really intend to demonetize silver in 1873-74,—and it is clear they did not,—then it was their duty to set the matter right. It was well that the silver dollar should be restored to the list of coins of full legal-tender power. This having been done, Congress should have provided for striking just so many of these pieces as might be needed for souvenirs and numismatic collections. The provision of the Act of February 28th for the actual coinage of two millions, a month, as a minimum, was bad policy, from every point of view. It was so considered by the most intelligent bimetallists here, and was so esteemed by the leading bimetallists of Europe. For the United States to go at all into the market for silver, as a buyer, was a gigantic blunder. We simply put our own fingers in the door, and took the squeezing which belonged to the nations of Europe, and especially Germany and England, the countries which had most to do with bringing about demonetization and which were certain to suffer most from a fall of the price of silver. Just so far as the influence of our act extended—and two millions a month allowed a very considerable effect to be produced upon the market—it was in the direction of diminishing the interest European

countries might have in restoring silver to its rank as a money metal, from which it had been violently thrown down by force of law. The impolicy of the coinage feature of the Bland bill was not only evident in advance; it was distinctly felt by the delegates who represented this country in the Conference of 1878, as I can personally testify. The United States had practically given themselves away. Having already entered upon a course of extensive coinage, we had not left ourselves anything "to trade with," in negotiations with foreign countries. Had we gone into the Conference prepared to say, "We will coin two millions a month, or four millions, or six millions, if you, on your part, will do thus and so," the situation would have been much more favorable.

Not only was the coinage feature of the Bland bill highly impolitic from what may be called the diplomatic point of view; but it has proved prejudicial from the point of view of public discussion. Through the influence of that Act, and of the Sherman Act of 1890, the fall of silver was greatly postponed, the result which otherwise would have been reached in a few years being extended over twenty years. In consequence, the whole matter has been confused to the eye of the observer. It has been made possible for the adversary and the caviller to allege that the reason for the fall of silver from 60d. an ounce to 30d. has been the large silver production of the intervening period; whereas, if silver had been allowed at once to fall to the bottom, that is, to fall as far as it would without any interference, it would have been impossible for any one to be so blind as not to see, or

so uncandid as to refuse to admit, that the effect had been due to the destruction of the bimetallic system. We, in this country, could have borne the consequences of demonetization a great deal better than England or Germany or Holland or France. The more severe the pinch upon them, the greater would have been their interest to move in the matter. There is absolutely nothing to be said in favor of this feature of the bill of February 28, 1878.

CHAPTER VII.

THE GREAT DEBATE.

IT will be remembered that by the Act of February 28, 1878, the Congress of the United States authorized the President to invite a conference of the nations to consider the relations of gold and silver. The invitation was accepted by most of the leading powers; and the Conference was held in Paris during the summer of that year, under the presidency of M. Léon Say,* the French Minister of Finance, himself a distinguished economist. The British commission was especially notable. Mr. Göschen was chairman, with Mr. Henry Hucks Gibbs (now Lord Aldenham) and Sir Thomas Seccombe as his colleagues. Mr. Göschen had been known as more favorably disposed toward bimetallism,† both theoretically and practically, than the great majority of English statesmen. This attitude he has maintained down to the present time. Mr. Gibbs had been Governor of the Bank of England, and has long been one of its most prominent directors. Soon after the Conference, he assumed the ground of uncompro-

* Since this was written, M. Say has died.

† In the Conference Mr. Göschen declared that the complete demonetization of silver portended a commercial crisis to which no parallel could be found.

misgiving bimetallism and to this day has not ceased to advocate that policy. Sir Thomas Secombe, like all persons concerned with East Indian affairs, appeared at the Conference of 1878 profoundly desirous that something should be done to restore the broken par-of-exchange with India. While, thus, the members of the British delegation were highly favorable, in their personal views, to the object of the Conference, and, while they did everything they could to encourage action on the part of others, their instructions precluded them from compromising the position of England as a gold-standard nation.

Germany had not accepted the invitation of the United States. Her act of demonetization was too recent. The very call of the Conference assumed that grave evils had followed that measure; and, although it was impossible that any judgment should be passed upon her action, or any open reflections thereon made in the sessions, the holding of the Conference was, in itself, a criticism upon demonetization. The absence of Germany, taken in connection with the fact that the British delegates were bound to make no concessions regarding the English standard, rendered it impossible, at the start, that there should be any practical result. So desirous were the delegates of the nations represented to induce Germany to reconsider her action, that a recess was taken to allow an appeal to the government of that country. The new invitation was of a pressing character; but Germany remained firm.

While the situation was thus practically a hopeless one, owing to the absence of Germany from the Con-

ference and the attitude of England in the Conference, France herself was, by reason of critical relations with her colleagues of the Latin Union, not in a position to exercise strong leadership. Switzerland, under the able leadership of M. Feer-Herzog, was stiff for gold monometallism; while Belgium was much disposed to break away from French influence. On financial, political, and even military grounds, Belgium is exceedingly important to France. Had the Conference been held a year earlier, Belgium would have been represented by a delegation of active, aggressive bimetallists, among whom probably would have been found the eminent Prof. Émile de Lavelève, of Liège. At the beginning of 1878, however, occurred a political revolution in Belgium. The Catholic party was driven from power, and M. Frère Orban came in at the head of the Liberals. The revolution was not economic in its purposes. But M. Frère Orban was personally a strong and aggressive monometallist. Hence it came about that Belgium was represented by a monometallist delegation. The influence on the Conference was very great. Without Belgium, the monometallist cause, proper, would have been represented only by Norway and Sweden, and by Switzerland, a state that never coined a ten-franc piece. The defection of Belgium not only deprived the bimetallist cause of a supporting delegation, but substituted a powerful opposition. And that opposition was in the very camp of bimetallism.

The delegation from the United States was under the chairmanship of ex-Governor and Senator Fenton, of New York. His colleagues were Messrs. Groesbeck

and Walker. Mr. S. Dana Horton, already well known by his writings on bimetallism, was secretary; and, on the request of the commission, was by the Conference admitted to participate in the discussions. The delegation from the United States did their best; but the case was hopeless, and the situation itself was not one of great dignity, so far as the Americans were concerned. France did not desire to have a Conference at the time, knowing well that nothing would come of it; and some other States had accepted the invitation purely out of courtesy. The American representatives were full of zeal and desired to enter at once into the discussion of the general question. Many delegates, however, took the position that the Conference was of a diplomatic, and not of an academic, character; and, while they listened civilly enough to whatever might be said, it was evident that the most of them deemed the discussion out of place, expected nothing to come of it, and desired to have the business at an end. Even from the French, the American delegates received little in the way of suggestion or encouragement. The Conference of 1878 was inopportune. The experience of gold monometallism had not been sufficient to bring the States of Europe to the point of action, though there were few which did not already regret the catastrophe of 1873. ✓

Moreover, while great losses had been sustained in industry and trade, the public mind of Europe was somewhat disposed to regard this mischief as incidental to the transition from one condition to another. The idea of a certain and rapid readjustment was very common. Few people, even the most thoughtful,

had any conception of the length of time and the terribly grinding character of the experiences the world would have to go through in order to get to monometallism, assuming that monometallism were possible. What would the men of 1878 have thought had they known that, at the end of eighteen years more of disturbance and turmoil, with long periods of depression and frequent sharp crises, they would be told by the leaders of their faith that universal monometallism is impossible; that the transition cannot be effected; that all which has been suffered has been in vain, so far as progress to that object is concerned; and that the nations are indefinitely to remain in the condition of a broken par-of-exchange!

✓ In 1881, at the simultaneous invitation of the governments of the United States and of France, another International Monetary Conference was held in Paris. The Conference was under the presidency of M. Magnin, French Minister of Finance. Fifteen nations were represented by delegates. Germany, at this time, appeared at the Conference. Ex-Secretary Evarts, ex-Senators Thurman, of Ohio, and Howe, of Wisconsin, with Mr. Dana Horton, constituted the American delegation. On the part of the British Empire appeared Sir Louis Mallet; Mr. (now Sir) Charles Fremantle, of the Mint; Lord Reay, representing East Indian interests; and Sir Alexander Galt, representing Canadian interests. The delegates from Belgium, Holland, and Sweden were men eminent for their knowledge of finance. Among the French delegates appeared a figure which had long been conspicuous in the controversy over bimetallism,

though up to this time without official recognition. M. Henri Cernuschi,* one of the delegates of 1881, had from the very first been the most ardent, enthusiastic, and combative of the bimetallist pamphleteers. He had come to the United States to testify before the Commission of 1876; and his tracts had fallen from the press with a profusion which only his large wealth and his intense zeal could explain. Others of the French delegates were M. Barthémely St. Hilaire, Minister of Foreign Affairs, and M. de Normandie, Governor of the Bank.

The Conference of 1881 had somewhat more of a *raison d'être* than that of 1878. Public sentiment had made no slight progress in three years. Gold monometallism had been put completely upon the defensive. The added experience of the legitimate effects of demonetization had not been sweet, but bitter. The world still suffered from the "break of gauge"; and the term of readjustment seemed to be lengthening, rather than shortening, with the lapse of time. The appreciation of money, which, down to 1878, had not been very marked, had now become considerable. £200,000,000 of gold (\$1,000,000,000) had, according to the estimate of Sir Robert Giffen, been taken to allow the United States to resume specie payments, after a suspension of sixteen years; to provide the new coinage of Germany; and to meet the needs of other European States, Holland, Scandinavia, and Italy, arising out of the act of demonetization. Meanwhile the production of gold had somewhat declined. It

* M. Cernuschi has died since this was written.

was manifest that, unless some remedy could be applied to the monetary situation, the world had entered upon a protracted period of falling prices. The discussion in the conference of 1881, though participated in by several men of high rank in finance, did not add much to the theory of the subject; while the time had not yet come for the practical solution of the difficult problem of restoring the monetary equilibrium. The action of Germany was now almost universally deplored; but the difficulties of applying a remedy increased, in the view of statesmen and financiers, almost as rapidly as their apprehension of the mischief which had been wrought. Perhaps the most important contribution to the discussion was the argument of M. de Normandie, Governor of the Bank, to the effect that, while France had, between 1803 and 1873, performed a vast service to mankind by the maintenance of the bimetallic system, her own national interests had not been sacrificed but had been promoted thereby. M. de Normandie said:

"One sees demonstrated by facts, with crushing evidence, the superiority of the double over the single standard. In 1837-38-39 a violent crisis raged in America. The federal treasury withdrew its deposits from the United States Bank, and, to restore the metallic currency, inundated the English market with American paper. At London the situation became extremely serious, and the metallic reserve of the Bank of England fell from two hundred million francs to seventy-five million. . . . The Bank of England was even forced to recur to the Bank of France, which loaned it fifty million francs in credit values—itself, thanks to the French bimetallic system, scarcely feeling any shock from the catastrophe at New York and London. In 1848 raged the 'wheat crisis,' common to both countries. The act of 1844 was suspended in England;

loans ran only for thirty days; numerous failures upset the market, and discount rose to eight per cent. In France the crisis was promptly alleviated by selling to Russia national *rentes* to the sum of fifty million francs, and discount was maintained at five per cent. In 1857 a new monetary crisis, answering to the crisis in America, occurs in France as in England; and this time, too, it is much the less intense on the French side of the Channel. The Bank of France is forced to raise its rate of discount to ten per cent., but only for a fortnight; while the Bank of England, whose gold had been in some sort drained by the United States, sees itself constrained to maintain for six weeks its discount at the excessive rate of ten per cent.

“In 1866, through the imprudent over-development of societies with limited responsibility, a new monetary crisis manifests itself, this time more intense. The Bank of England, attacked by the withdrawal of specie from circulation and by the exhaustion of its note reserve, again obtains the suspension of the act of 1844; and the rate of its discount varies, between January and the following July, between six, eight, and ten per cent. During this same year the mean rate of discount at the Bank of France is not above four and a half per cent. Thus, in all the crises that have arisen, at epochs so diverse, in circumstances so different, one sees the Bank of France less distressed than the Bank of England. In forty-five years, from 1837 to 1881, the former modifies the rate of discount only one hundred times; the latter does this two hundred and ninety-two times. We may affirm without rashness that the French monetary system is not without influence in this result. The power which France possesses of recurring, alternately or simultaneously, to the two metals permits her not only to employ the one or the other according to circumstances, and to allay the effects of their alternating scarcity, but also to come to the relief, not without profit to herself, of those of her neighbors who want, now gold, now silver.”

THE ENGLISH COMMISSIONS.

After 1881 the world enjoyed a rest of eleven years from international monetary conferences, although a sort of conference was held in Paris in 1889, in connection with the Exposition; but the discussion of the silver question was carried on more earnestly than ever. The years 1881-85 witnessed great changes in the public sentiment of Europe, especially in England. In the latter country the prestige which monometallism had enjoyed since 1816 was greatly impaired. There had been a remarkable loss by death among the older economists; and the vacant places had been filled by a group of comparatively young, but very able, thinkers and teachers, who were, without an exception, distinctly opposed to the views of their predecessors, while some of them became active and aggressive advocates of bimetallism, writing and speaking freely upon the economic mischiefs of demonetization. Among the latter class may be mentioned Prof. Foxwell and Prof. Shield Nicholson. Among the economists who, while not entering actively into the bimetallist propaganda, still expressed entire dissent from the monometallist view, and presented considerations and arguments which told altogether on the bimetallist side, were two who must be named with special honor—Prof. Alfred Marshall, of Cambridge, easily the first economist among the English-speaking nations, and Prof. F. Y. Edgeworth, of Oxford University, Secretary of the British Economic Association and Editor of its Journal, a writer of the mathematical school in economics who has no superior in any land.

The manufacturing, agricultural, and navigation interests of England, which had suffered immensely from the "break of gauge," the dislocation of exchange with silver-using countries, now began vigorously to assert their right to be considered in the monetary policy of their country. The loss of prestige on the part of gold monometallism, as a consequence of commercial disorders following the demonetization of silver, from which the advocates of that doctrine had promised great benefits, was hastened by the accuracy by which the bimetallist forecasts of the effects of that policy had been realized. Regarding this Prof. Foxwell remarks as follows, in his address before the National Club on the 27th of March, 1895:

"Nothing is more instructive than to compare the forecasts of such men as Ernest Seyd, Wolowski, Baron Alphonse de Rothschild, and the bimetallists generally, with those of even the ablest monometallists, such as Jevons and Bagehot. The loss of the par-of-exchange, the depreciation of property, the ruin of agriculture, the depression of trade, the very fall of the rupee to rs., all this was accurately foretold by Ernest Seyd and other bimetallists before the demonetization began; while Bagehot held in 1876 that the Indian exchange difficulty would soon correct itself, and Jevons, in 1875, thought the price of silver need not fall further, and that gold was not likely to rise. As for the City Editors, I do not know how many scores of times they have assured us that 'prices had touched bottom', and that silver would 'shortly find its natural value'—whatever this may mean. *If prevision is a test of science, the bimetallist explanation easily holds its own.*"

✓ In 1885 * an increasing sense of the evils of the

* There had been earlier manifestations of a strong desire for some action favorable to silver. Soetbeer, on pp. 141-2 of his *Litteraturnachweis*, mentions several,

financial dislocation which had been brought about by demonetization, led to the appointment of a Royal Commission on the Depression of Trade. The Commission was presided over by Lord Iddesleigh, formerly, as Sir Stafford Northcote, Chancellor of the Exchequer. Among the members were Mr. Sclater-Booth, Mr. R. H. Inglis-Palgrave, Mr. Hucks Gibbs, Sir William Houldsworth, and Prof. Bonamy Price. The Commission performed its work with remarkable thoroughness and completeness; and the successive reports constitute one of the best surveys of the world's commerce to be found in the multitudinous literature of the subject. These, however, do not greatly concern the question we are discussing. This is not because the Commission took a disparaging view of the influence of the demonetization of silver in producing the depression of trade, which they found to be general,* and in bringing about a fall of prices. On the contrary, the Commission declared their belief that there had been "a continuous fall of prices caused by the appreciation of the standard of value." That fall of prices the Commission found to be one of the most important of the causes operating to produce the existing condition. I quote their language:

"There can be little doubt that production and commercial enterprise are stimulated to a greater extent by rising than by falling prices. Whatever may be the inconveniences of a rise in prices, it certainly encourages a greater activity in production and an extension of credit. When prices are rising, capital is

* "By this depression is meant a diminution, and in some cases an absence, of profit, with a corresponding diminution of employment for the laboring classes." (p. x, Final Report.)

constantly endeavoring to find new means of employment ; and a spirit of enterprise animates all the classes engaged in commercial operations. In times when prices are falling, on the other hand, speculation, even of a perfectly legitimate kind, is checked, and production tends to diminish. Suppose a manufacturer to borrow a fixed sum at a fixed rate of interest. This he has to repay, whatever the result of his operations may be. Meanwhile prices may fall. Not only does he buy his raw material at the higher price and sell his goods at the lower ; but he has also to pay interest* and repay principal on the higher value ; and, in addition to this, it is found that wages do not respond to such movements as quickly as the prices of commodities. The trader, too, is affected in the same way ; he does not know what the value of his stock will be at the year's end, or what profit he will be able to secure upon his capital ; and, when trade is crippled, it is natural that production should halt." (p. xix.)

So far were Lord Iddesleigh's Commission from taking a disparaging view of the influence of demonetization in producing the results they ascertained, that, in their Third Report, they addressed the Queen with a statement that the question of the relation of the changes in the currency to the welfare of trade and production had come to seem to them so important as, in their judgment, to require that this subject should be made the matter of distinct investigation, at the hands of an independent commission. Upon this recommendation, Her Majesty's Government, in 1886, constituted the Gold and Silver Commission, under the presidency of Lord Herschell, formerly and since, Lord Chancellor. The commission was composed of twelve members, six of whom, the Chairman, Mr. Courtney, Lord Farrer, Sir Charles Fremantle,

* See statement by Prof. Marshall, in note to page 274.

Sir John Lubbock, and Mr. Birch, were known as gold monometallists; six, namely, Sir Louis Mallet, Mr. Balfour, Mr. Chaplin, Sir David Barbour, Sir William Houldsworth, and Sir Samuel Montagu, as bimetallists. Among those who gave testimony before the Commission—in some cases with very great fulness, in single instances testimony which would make a respectable volume—were the following: Mr. Gibbs, Mr. Grenfell, Mr. (now Sir) Robert Giffen, Prof. Marshall, Prof. Nicholson, Lord Bramwell, Sir Evelyn Baring, Mr. Pixley, Mr. Inglis-Palgrave, Mr. Samuel Smith, Mr. Sauerbeck, Mr. Henry Dunning Macleod, Sir Hector Hay, Mr. Bertram Currie, and Prof. Roberts Austen, the last of whom spoke on the geological and metallurgical problems connected with the supply of the precious metals.

The Herschell Commission carried on its investigation with a thoroughness exhibited in no previous inquiry into the money question; and collected a body of information and opinion which makes its reports, issued successively in 1887 and 1888, a mine of wealth for the financier and the economist.* The ability

* Among the results of this and other British investigations has been the serious impairment of the prestige formerly attaching to estimates of the existing stocks of the precious metals, put forth often by persons deemed competent. In the earlier investigations such estimates cut a great figure; but they are now greatly discredited. Mr. Bagehot, indeed, in 1876, expressed a very unfavorable opinion regarding them. Ques. "Have you examined the statistics which are available to the public with regard to the aggregate amount of silver and gold in various countries?" Ans. "I have examined them; but I regret to say that I do not think they are of such value as to be made the basis of sound reasoning in such investigations as this. It appears to me that

which was brought to bear on the question, some of whose aspects had only recently come into view, the care with which the exhibits offered had been prepared, the severe scrutiny to which statistical results were subjected, the application to the monetary problem of the best results of modern economic thought, all combine to make these volumes valuable in a degree it would be difficult to express.

The Commission made three reports, commonly known as the First, the Second, and the Final report. The Final Report, which contains the conclusions of the Commission, embraces three parts: first, a statement in which all twelve members joined; second, a statement signed by the six monometallists as a group; third, a statement by the bimetallists of the Commission. To these were added notes by in-

you neither know with certainty the present stock of silver in the world, nor are you able to estimate the probable augmentation of it; nor do you know the effect which any given percentage, say 10 per cent on the stock, would have upon its value. The last part is a matter which has not even been discussed, I think." Ques. "You would question, after all the study you have given to the subject, both the accuracy and the real substantial value of figures that go into the aggregate amount of silver and gold in the world, and the proportions of the metals to each other?" . . .

Ans. "*I do not believe they are worth the paper on which they are written.* I do not consider that any one knows anything about them, or has the means of knowing." (Committee on the Depreciation of Silver, Nos. 1390, 1391, p. 65.)

Prof. Jevons and Sir Robert Giffen subsequently corroborated Mr. Bagehot's view. An equal objection does not lie to estimates of annual production, though of these Prof. Jevons remarks: "Even the apparently precise returns of produce and amounts transmitted are probably most inaccurate," (*Investigations, etc.*, p. 313.)

dividual members, one signed jointly by Sir John Lubbock and Mr. Birch, another by Sir David Barbour, and another by Sir Louis Mallet. I have, in a previous chapter, quoted * the admission, by the entire twelve members, of the efficiency of the bimetallic system in maintaining an approximate par-of-exchange, through a period of seventy years, in spite of important changes in the production and use of the precious metals. That admission, which was all any bimetallist could ask, was supplemented by the following declarations contained in the report of the monometallist group:

107. "We think that in any conditions fairly to be contemplated in the future, so far as we can forecast them from the experience of the past, a stable ratio might be maintained if the nations we have alluded to† were to accept and strictly adhere to bimetallism, at the suggested ratio.‡ We think that if in all these countries gold and silver could be freely coined, and thus become exchangeable against commodities at the fixed ratio, the market value of silver as measured by gold would conform to that ratio, and not vary to any material extent. . . .

108. "We do not deny that it is conceivable that these anticipations might be falsified by some altogether unprecedented discovery of one or other of the precious metals, and that the maintenance of a stable ratio might then become difficult. But for practical purposes we think we may put this aside and reasonably act on the assumption that no such grave dislocating cause is likely to arise. We have already drawn attention to the fact that, during the time covered by the great gold dis-

* See pp. 135, 136.

† The United Kingdom, Germany the United States, and the Latin Union.

‡ "Approximating to the market ratio."

coveries, the production of silver continued undiminished, and that of late years, when gold is said to have been appreciating, the production of silver has increased."

119. "Apprehensions have been expressed that, if a bimetallic system were adopted, gold would gradually disappear from circulation. If, however, the arrangement included all the principal commercial nations, we do not think there would be any serious danger of such a result. Such a danger, if it existed at all, must be remote. It is said, indeed, by some, that if it were to happen, and all nations were to be driven to a system of silver monometallism, the result might be regarded without dissatisfaction. We are not prepared to go this length; but, at the same time, we are fully sensible of the benefits that would accrue from the adoption of a common monetary standard by all the commercial nations of the world, and we are quite alive to the advantage of the adoption by these nations of a uniform bimetallic standard, as a step in that direction."

The foregoing admission, signed by all the monometallist members, was only qualified in the note of Sir John Lubbock and Mr. Birch, already referred to, in which they expressed their individual doubt as to the possibility of maintaining international bimetallicism through an indefinite period of time, in face of all the changes which might occur in the production of the precious metals. Inasmuch as these gentlemen had joined in the statement that the bimetallic system, supported by France alone, had sustained itself through nearly three-quarters of a century, in spite of alterations in the production and use of the precious metals of the most tremendous extent, we can only suspect that it was some period much longer than seventy years, or some change in the conditions of production much greater than that induced by the

Californian and Australian discoveries, which they had in view. Further quotations from the monometallist part of the Report may be instructive, especially with reference to the scorn expressed by some of the loftier champions of monometallism in the United States towards all who show an interest in the use of silver as money. English and Continental financiers and statesmen are not too grand to concern themselves in the matter.

"In our opinion it might be worth while to meet the great commercial nations on any proposal which would lead to a more extended use of silver, and so tend to prevent the apprehended further fall in the value of that metal, and to keep its relation to gold more stable." (§ 135) . . . "Though unable to recommend the adoption of what is commonly known as bimetallism, we desire it to be understood that we are quite alive to the imperfections of standards of value, which not only fluctuate, but fluctuate independently of each other; and we do not shut our eyes to the possibility of future arrangements between nations which may reduce these fluctuations (§ 138.)"

The views and practical proposals of Prof. Alfred Marshall, as offered to the Commission, constitute one of the most important contributions to the theory of metallic money which have been made during the great debate. As between gold monometallism and bimetallism in its familiar form, Prof. Marshall is wholly on the latter side. But this eminent economist thinks there is "a more excellent way." What we know as bimetallism he terms "fixed-ratio mintage," denying it the title bimetallism, which, in his opinion, "means that the payment of every debt shall be effected by the delivery of certain amounts of *both* metals, or of paper which represents them." (Her-

schell Commission, Appendix to Final Report, No. 9705.) Prof. Marshall proposes the government issue of certificates, each certificate standing for a certain amount of gold and a certain quantity of silver bearing a legally adopted ratio to the gold. Were the French ratio to be taken, a certificate would stand for one part of gold and fifteen and a half parts of silver, actually deposited and remaining in trust for the redemption of the certificate, whenever desired. A money thus composed Prof. Edgeworth compares to a *linked bar* of silver and gold. The essential distinction between this and French bimetallism he characterizes as follows: "The arrangement that there should be a *joint demand* for gold and silver money might, perhaps, be called *symmetallism*, to distinguish it from the arrangement that there should be a *composite supply*, which is called *bimetallism*." Prof. Marshall's proposal has received much attention; and is certainly to be reckoned with in the further discussion of the means and methods for raising the world's trade and production out of the unfortunate situation into which they have been brought by the demonetization of silver and the dislocation of international exchange. In the September number of the British *Economic Journal*, for 1895, Prof. Edgeworth subjects the French system, usually known as the Bimetallic, and that offered by Prof. Marshall, which he styles the Symmetallic, to a severe mathematical treatment, according to various assumptions; and finds that, in each case, the latter, which we may call Bullion Bimetallism, yields an equally good result, while, on certain assumptions regarding changes in supply or in demand, the Bullion plan is

preferable. So far as the value of money is concerned Prof. Edgeworth finds that both the symmetallic and the bimetallic systems secure the result of less fluctuation than that which would, on the whole, occur in the values of the single gold standard and the single silver standard. In conclusion, this master of mathematical economics pronounces in favor of symmetallicism, as contrasted with bimetallism, commonly so called, or with either form of monometallism. The one objection on practical grounds which he acknowledges is the unfamiliarity, the strangeness, which the system would bear to the public mind. This last objection, indeed, might, and probably would, be found of force in England; but in this country we have become so well accustomed to the use of metal-certificates, first of gold and then of silver, that the form of the proposed money would encounter no popular objection, if the principle were once accepted.

The symmetallic scheme appears to have been adopted by Prof. Foxwell, the most active champion of bimetallism among the English economists, in his reply to Lord Farrer. Prof. Foxwell says: "The bimetallicists recognize that the situation has been somewhat modified by the events which have followed 1873. A moral shock has been given to the position of silver by the hostile legislation of many governments tumbling over one another in a *sauf-qui-peut* scramble for gold; and there has been an increased tendency to the use of gold coins for pocket-money. Hence they propose that the restored bimetallism shall be founded on a broad international basis; and that it shall be planned rather upon the principle of

the Bank purchases of gold bullion under the Act of 1844, than upon the more primitive system of coinage, so that the existing circulations of the various countries may remain practically undisturbed."

It is not to be understood from the foregoing that the suggestion of such a "linked bar" of gold and silver, as the basis of a true bimetallism, is wholly original with Prof. Marshall. Something of this kind was suggested, as a possible solution of the question of the use of gold and silver as money, by Sir James Steuart, at about the middle of the last century. Prof. Foxwell attributes the origin of the proposed monetary system to Ricardo's *Proposals for an Economical and Secure Currency*. "Indeed, Ricardo himself traces it still further back, remarking that it resembles the old practice of the Banks of Amsterdam and Hamburg. The merit of applying the method to the case of a bimetallic system seems to belong to Mr. Alexander Baring in 1819. Similar schemes were brought forward by Huskisson in 1826 and Haggard in 1840. The suggestion was repeated by Mr. Pierson, now Governor of the Bank of Holland, at the Conference of 1881."—Address before the National Liberal Club, pp. 24, 25.

On one of the points which Prof. Marshall adduces as showing the superiority of Bullion Bimetallism over Coinage Bimetallism, I must confess myself somewhat sceptical. His argument is that the recently developed tendency of governments to hoard gold, especially for war purposes, so conspicuous in the case of Russia, but also seen in the accumulations of Austria, Germany, and France, might prove fatal to Coinage

Bimetallism, while it would be reduced to a minimum, or altogether disappear, under Bullion Bimetallism. In reply to the suggestion that such hoarding of gold by governments is of recent origin; that, under bimetallism, that is, while the French system continued in force, it took place only in a very limited degree and that almost wholly on the part of a single nation; and that, therefore, it presumably would not operate under a restored bimetallism, Prof. Marshall expresses his belief that the change in this particular is a permanent one, "due to changes in the methods of war, and not in the circumstances of the metal"; and that "the experiences of the [recent] Continental wars have altered the views of governments very much on the subject of gold." He adds: "I think that part of Germany's fondness for gold arose after the war with Austria."

On this point my convictions do not go with Prof. Marshall's. Thirty years ago "a military chest" was regarded as an anachronism, a relic of semi-barbarous conditions. A country prepared for war by having its finances in a sound state, and by accumulating wealth in general, and not in special forms, except as regarded the *matériel* for the equipment of armies and navies. Prussia, alone of all advanced nations, maintained a war-chest. That this was of convenience, on the outbreak of hostilities with Austria, in 1866, there can be no doubt; but that it was, in any degree, an essential condition of Prussia's triumph in the Seven Weeks' War I do not believe. Possibly, that instance may have had some share in inciting the Germany of to-day, with Russia, Austria, and France,

to make large accumulations of treasure, with a view to a possible crossing of the Danube or the Rhine; but my conviction is strong that the present situation is abnormal—due to “the struggle for the coverlid of gold” which has agitated the markets of the world ever since 1873; that it is the insufficiency of that metal to meet the new and extensive demands created by the demonetization of silver, which has led to the result we see; and that with the re-establishment of bimetallism, whether upon the old ratio or on some ratio made more favorable to gold out of respect to new conditions, the barbarous hoarding of metal for the purposes of war, a system more worthy of Persia, under Darius, than of a modern European nation, would at once cease. But all this is matter of opinion.

I have spoken above of the possible restoration of bimetallism, “whether upon the old ratio, or on some ratio made more favorable to gold out of respect to new conditions.” It is not my purpose to discuss the question of the ratio. Some leading monometallists are exceedingly anxious to have the bimetallists take a position on this subject. It depresses them exceedingly that we will not do exactly what they want.

There are three good reasons why bimetallists should refuse peremptorily to take any position regarding the ratio while the question of the restoration of bimetallism remains in the stage of discussion. First, because it is, in general, good policy to refrain from doing what your opponents most desire you to do. Secondly, because the question of the ratio properly and logically follows the determination of the question whether a strong and serious effort shall be made to

re-establish bimetallism. When any sufficient number of commercial powers shall get so far together as to agree that the re-establishment of that system is of predominant importance, and shall reach the stage of negotiation regarding this as an object of common interest, then will come the time for discussing and deciding the question of the ratio. Thirdly, the question of the ratio follows the decision and the determination to re-establish bimetallism, by more than mere logical propriety and sequence in time. The policy of the ratio will itself necessarily be affected largely by the number and importance of the states joining in the arrangement. Should England, France, Germany, Italy, and the United States, with their financial allies and dependencies, give in their adhesion to the bimetallic system, the old ratio could unquestionably be taken and made good through generations to come. If, on the other hand, the league were smaller, there would be a greater occasion for paying respect to the consideration that the conditions of production have, during the past twenty-five years, changed somewhat in the direction of giving gold a larger value in terms of silver than at any earlier date. The extent to which these changes in the conditions of production have been carried has been monstrously exaggerated, to a point of downright dishonesty, by a great number of monometallist writers and speakers; but that a change has taken place in the direction indicated is not to be questioned.

While declining thus to discuss the question of the actual ratio to be taken in any attempt to restore international bimetallism, I do not hesitate to say that

all talk about taking the existing ratio of the market, say 30 : 1, as the ratio for the bimetallic mints, is simply silly. Silver has fallen to 30 for 1 of gold, because of demonetization. Remonetization, even by a weak league, would necessarily and instantly put silver back to somewhere near its former position. Remonetization by a strong league would put it clear back and would hold it there against any but revolutionary forces. Of course, if the conditions of production have definitively changed in the direction of giving gold a higher value in terms of silver, even such a league would be stronger with a ratio somewhere more favorable to gold than with the old ratio. (On this point see pp. 102-5.) The maintenance of any ratio in the coinage is a question of the proportion between the forces, natural or commercial, making for divergence and the force exerted by the bimetallic principle in the way of restraining divergence and holding the metals together. If, indeed, the conditions of production have changed in the direction of giving gold a higher value in terms of silver than formerly, the "factor of safety" will be smaller with the old ratio than it would with a new ratio somewhat more favorable to gold—say, 18 or 20 : 1. Yet notwithstanding this, the "factor of safety" might still be sufficient to hold the bridge * in place and enable it to do its beneficent work at the old ratio. These, as I said, are questions to be dealt with when the nations, or a sufficient number of them, have made up their minds and have agreed together to re-establish bi-

* See page 142.

metallism. Any serious discussion of the ratio prior to that time is playing into the hands of the enemy.

To resume our story of the progress of the Great Debate. The reports of the Gold and Silver Commission, made in 1887 and 1888, could not fail to produce a profound impression upon the public mind of England and of the Continent. The weight of testimony—even that given by avowed gold monometallists, like Sir Robert Giffen and Lord Farrer—had tended to lift bimetallism in the public view as a system economically sound and thoroughly practicable under the normal operation of individual self-interest, subject only, at the worst, to diplomatic and political difficulties and complications; while the unanimous admission, on the part of the Commission, as to the practical efficiency of the system under the test of actual working from 1803 to 1873 largely removed, even in the highly conservative public mind of England, those sentiments of contempt and distrust which, down to this time, had withstood the progress of bimetallist views, in spite of arguments alike from reason and from experience. The proscription of bimetallism ceased. With the authority of the universities and with the approval of a Commission like that over which Lord Herschell presided, it could no longer be “bad form” to be a bimetallist.* The British Bimetallic League was formed; and a thorough canvass

* In a recent speech, Mr. Balfour said: “I recollect the day when, to announce yourself as a bimetallist—though almost every economist of repute was at that very moment a declared bimetalist—was, nevertheless, to write yourself down, in the opinion of those I am speaking of, as a faddist of the most dangerous order.”

of the Kingdom was undertaken. In August, 1893, no small sensation was created by the appearance, upon the public platform, of Mr. Arthur J. Balfour, the Conservative leader in the House, now First Lord of the Treasury, in the rôle of an earnest advocate of bimetallism. Mr. Balfour had been one of the bimetallists of the Herschell Commission, though not, until the occasion stated, supposed to be a positive and active advocate of the adoption of that system by his own country. Mr. Leonard Courtney had been one of the strongest of the monometallists of the Commission. In the *Nineteenth Century Magazine* of April, 1893, Mr. Courtney announced his adherence to the cause of bimetallism.* Mr. Henry Chaplin, long the leader of the agricultural interest in Parliament, and a member of the present and of the last Conservative administration, also joined in the movement. The great Baring failure, throwing a flood of light upon the effects of demonetization in the countries which were largely debtors to England, made converts even in the city of London; and Mr. Lidderdale, who had been Governor of the Bank during that tremendous crisis, and whose masterly conduct saved England and the world from a terrific catastrophe, joined the ranks of the bimetallists. The strength of that party in the House of Commons

* "Five years ago I joined with my friends in deprecating any attempt to establish an international agreement for the free coinage of both gold and silver as standard money. I have advanced, with further experience and reflection, to the belief that such agreement is to be desired, and that it could be accomplished with the minimum of change and with great advantage to the empire and the world, on the conditions I have suggested."

steadily increased, with successive general or "bye" elections.

I have spoken of the effects of demonetization upon countries debtor to England. The monometallists had long been accustomed to urge, as an argument for their case, the heavy premiums which the progress of demonetization enabled England to collect from the peoples to which her surplus capital had been loaned. Thus, China, in repaying her gold loan of 1885, paid about double the amount she had received, inasmuch as the exchange for the loan was paid at 3s. 9d. per tael, whereas the quotation at the time of repayment was 1s. 11½d.* In his speech in the House of Commons, February 28, 1893, Mr. Gladstone offered this ✓ as a leading argument against the restoration of bimetallism. But England was to learn that there is a point beyond which selfish aggrandizement cannot be pressed without disaster; that there is such a thing as carrying the oppression of debtors so far as to bankrupt them, with consequences injurious to the creditor himself; that economic retributions do take place even in this world of imperfect justice. The extensive failures in Argentina, Australia,† and other countries to which England had loaned enormous amounts of capital, began after 1890 heavily to offset the advantages to be derived from the appreciation of gold. Against the profits of squeezing the debtor had to be weighed the possible losses to be sustained from his bankruptcy; and minds that were not to be con-

* Foxwell, Address before the National Liberal Club, p. 35.

† Sir Robert Giffen had in 1888 predicted serious trouble in these countries from the appreciation of gold.

vinced by arguments concerning the solidarity of human interests, were enlightened by experience of the natural effects of a selfish and grasping policy. Of this period of English finance Prof. Foxwell says:

"The gold creditor has sustained enormous losses by the various repudiations, reconstructions, moratoriums, forced reductions of interest, to which the increased pressure of debt has given rise; and the smooth terms applied to the breaches of contract indicate that they are received with some tolerance, as not wholly inequitable. Even so staunch a supporter of the gold standard as the *Pall Mall Gazette* states, on March 5, 1895, that the inviolable sanctity of the mortgagee cannot be maintained where everything is in a state of flux." (Address before the National Liberal Club, pp. 35, 36.)

SILVER COINAGE IN THE UNITED STATES.

Meanwhile the United States had continued the mischievous policy of coining silver, at the ratio of 16 to 1, which had been begun under the Act of February 28, 1878; while the agitation of the subject throughout the country became more and more intense. As the views and wishes of those who have not failed since 1876 to press upon the public mind and upon the attention of Congress the importance of action to restore silver to its former rank as a money metal, have differed very widely, it seems right to say a few words in characterization of the three classes of persons in the United States who have been wont to call themselves bimetallists. We have, first, the inhabitants of the silver-producing states. These citizens have what is called a particular interest, as distinct from a participation in the general interest. The

restoration of silver to the position, as a money metal, which it occupied down to 1873 would, at any time during the past fifteen years, have meant to these people a higher price for the products of their community or section, perhaps of their individual properties. Their interest in the maintenance of silver as a money metal has been of the same nature as the interest of Pennsylvanians in the duties on pig iron and of the citizens of Ohio and Michigan in the duties on wool. Silver coinage is with them not a financial but an industrial issue. Although the silver-mining industry of the country is not large, in comparison with scores and scores of others, it has yet been able to exert a high degree of power in our politics, partly because of our system of equal representation in the Senate, partly because of the eagerness and intensity with which the object has been pursued. The second of the three classes referred to consists of those who, without any particular interest in the production of silver, are yet, in their general economic views, in favor of superabundant and cheap money. Among the leaders of this element have been found the very men who, between 1868 and 1876, were foremost in advocating the greenback heresy. Beaten on the issue of greenback inflation, they have taken up the issue of silver inflation. They have adopted the cause of silver, not because silver is more valuable than irredeemable paper (which they prefer), but because it is, and more especially because it promises still further to become, cheaper than gold, at the legal ratio. They are for depreciated silver, because, in their view, it is the next best thing (by which they mean what we

should call the next worst thing) to greenbacks. Those who constitute the element now under consideration are not true bimetallists. What they really want is silver inflation.

3 The third element of the silver party in the United States is one that has little in common with those which have been described, except by the accident of the situation. It comprises the convinced bimetallists of the country; men who believe, with Alexander Hamilton and the founders of the republic, that it is best to base the circulation upon both the precious metals.* These men are bimetallists because they believe that that system will at once avoid the evils of a restricted money-supply, secure an approximate par-of-exchange between gold countries and silver countries, and promote stability of value in the money of the commercial world. They are not inflationists, although, in accordance with their general views regarding the importance of the *status* and the evils of disturbing the existing structure of industrial society, they strongly deprecate contraction.

I would not wish to be understood as refusing to regard as real bimetallists many persons who, in the situation existing, are in favor of the free coinage of

* "Upon the whole, it seems to be most advisable not to attach the unit exclusively to either of the metals; because this cannot be done effectually without destroying the office and character of one of them as money, and reducing it to the situation of a mere merchandise. . . . To annul the use of either of the metals as money is to abridge the quantity of circulating medium, and is liable to all the objections which arise from a comparison of the *benefits of a full with the evils of a scanty circulation.*" Hamilton; Report on the Mint,

silver. The test of the true bimetallist is simply this: is it his object to secure an absolute or approximate par-of-exchange between the two metals, and to promote the fullest use of both, as money, which may be consistent with the working of the laws of trade? If this is his *bona fide* wish and purpose, any man is entitled to be considered a bimetallist, even though he may propose a mistaken policy in any given place and time. The error of those free-coinage men who are also sincerely in favor of the larger bimetallism, is in failing to recognize (1) that the time has passed when even France, herself, could maintain the function she performed from 1803 to 1873, so greatly have the stocks of the precious metals been increased; so vast is now the mass of securities immediately marketable; so much more rapid is the communication of news and the transportation of specie; so potent has been the influence of Germany, through its passing over from the silver to the gold states; so much have trade and production developed with the improvement of arts and the increase of population. (2) That the people of the United States normally use vastly less metal money than the French now do, or than the French did in the early time; and, by consequence, this country is not and has never been in a position to exert an equal effect upon the market for the money metals.

I have habitually spoken of "at least an approximate" par-of-exchange between gold and silver as established by the bimetallic system. In speaking, just now, of an "absolute" par-of-exchange, I have in mind, not a theoretically perfect standard, but one

which is exact and indefeasible *within the range of economic choice and preference*. Thus, while there are no two objects in nature exactly alike, there are many classes of objects where the individuals are so nearly alike that no economic preference exists between them; possibly, so nearly alike that our untrained and unassisted senses do not discern the difference. In such cases, economically speaking, the parity is absolute, in spite of non-economic differences which might be discerned by the expert or which might be of much interest and importance to the man of science. In the same way, while it is true that gold and silver, each having its own separate sources of supply and its own separate causes of demand, can never bear a theoretically exact value-relation to each other, it is entirely conceivable that the force exerted by the bimetallic system in restraining tendencies to divergence, from natural and commercial causes, between the two metals, might become great enough to prevent all fluctuations of value inside *the limits of economic preference*. There never were two horses which took a single step absolutely together; and yet, with a stout carriage, a sound harness, and a strong hand on the reins, millions of horses are every day driven in pairs with a practically good result, the hand of the driver, the harness, and the pole of the carriage taking up and disposing of all irregularities in the motions of the two animals. We have seen (pages 125-130) how great was the power of one State in restraining the tendencies to divergence between the precious metals. Prof. Lexis has admitted that a bimetallic league might be found sufficiently strong to destroy all

preference for either metal outside "the bimetallic basin." This would not mean that the value of gold and silver would remain absolutely at the ratio fixed by the bimetallic agreement; but that the range of divergence would be always within the cost of transporting metals from monometallist markets to bimetallic mints. If this were so, it would, for all practical commercial purposes, be the same thing as if there were no divergence whatever. A preference for either metal, in a monometallist market, which fell short of the cost of transporting the other, the cheapening metal, to a bimetallic mint would, for all purposes of economic reasoning, be the same as actual indifference. To this case would apply Mr. J. S. Mill's remark made with reference to another subject: "Small means do not merely produce small effects; they produce no effect at all."

To return to the consideration of the several classes of persons interested in the silver problem of the United States. Popular misunderstanding of the respective positions of these classes has been greatly increased by the bitterness and unfairness* of the Eastern press. Many papers, in other things respectable, have

* That this treatment of bimetallists is not wholly confined to the United States may be gathered from the following remark of Rt. Hon. Henry Chaplin, of the present British Cabinet, made in an address before the Scottish Chamber of Agriculture, in May of 1894. "I often think that it is very fortunate for us that we do not happen to be living still in the days of the Dark Ages, for I am quite confident, if we were, that the conveners of this meeting, probably your chairman and most certainly the member from Sleaford, would have been burned at the stake, if that were possible, by our monometallic opponents, before I could escape from Edinburgh."

never ceased to denounce those who favored the rehabilitation of silver, no matter to which of the foregoing classes they belonged, as cranks, fanatics, and lunatics. Journals, ordinarily decent and dignified, have never given a single statement, as to what bimetallism is and what the bimetallists desire, from which a careful reader could form the faintest conception of that system. Misrepresentations and downright caricature of bimetallist principles, and insult and contumely towards the persons professing them, have formed the systematic policy of not a few.

In 1889 and 1890 the agitation for the free coinage of silver had risen to such a height as to threaten the inauguration of a system which would, in the opinion of all conservative men, not only monometallists but bimetallists, have speedily brought the United States to silver monometallism, having a par-of-exchange with the East and with the states of South America, but with a large and fluctuating premium upon gold. More than once this result appears to have been averted only by the aggressive courage and stubborn persistency of a few members of the House of Representatives. The Senate, at this time, owing largely to the system of equal representation of States, could have furnished no barrier to such a movement; and there was great doubt whether President Harrison would interpose the Executive veto. Under these circumstances, with the plea that it was necessary to concede something in order to avert free coinage, was passed the so-called Sherman bill, of 1890, which provided for the purchase by the Treasury of 4,500,000 ounces of silver per month. This measure was of a thor-

oughly mischievous character and effect. That it was necessary to make this concession to the free-coinage party I, for one, do not believe. I am so little of a doctrinaire that I should hesitate to say that, in all matters political, flat and contemptuous resistance to unreasonable demands and evil measures is always a safe policy. But my study of financial history creates an increasing conviction that the only good policy in dealing with financial crazes is to fight them, without asking or giving quarter. The men of 1890, to whom the people had entrusted their powers of legislation, did not deal with the matter in this spirit. Doubtless politics, in the lowest sense of the word, entered not a little to affect their temper; and the coming presidential election cast its baleful shadow before.

THE CONFERENCE OF 1892.

✓ In 1892 the United States again invited the powers of Europe to meet in conference. France politely declined to make Paris the seat of the Conference; and the English Government was quite confident that the proposed objects would not be favored by holding it in London. Brussels was accordingly selected. Unfortunately, the taint of partisan politics attached to the scheme from the beginning. I entertain no doubt that the Conference was hit upon by certain leaders, both in the Republican and in the Democratic party, as a means of taking the silver question out of the presidential campaign of that year. It would then be practicable to suppress the agitation for the free coinage of silver, during that critical period, by light and

easy reference to the fact that a great gathering of the nations was to take place, to consider the subject, carrying the intimation that at last "justice would be done to silver." So far was this game of politics carried that the negotiations for holding the Conference were protracted to a point which deprived the bimetallists of almost the only hope that could have been entertained of a fortunate issue. At the time when the law authorizing the Conference was passed, the Conservatives were in power in England. Lord Salisbury was known to entertain the same benevolence towards bimetalism which had characterized Lord Beaconsfield, and which, indeed, a British Minister of Foreign Affairs is very likely to feel. Mr. Goschen, the Chancellor of the Exchequer, was also known as being at least a sympathizer with the efforts of the bimetallists to restore the broken par-of-exchange, while the Cabinet contained, besides other persons well affected, two champions of out-and-out bimetalism, Mr. Balfour and Mr. Chaplin. Had the British commissioners to the Brussels Conference been appointed by the Salisbury ministry, it is certain that a majority of the members, even if instructed not to compromise the English standard, would have been men who desired a successful result; and they would probably have been authorized to make some very considerable concessions on the part of their country, all, indeed, that could be made, saving the gold standard of the British Islands. Owing, however, to the unnecessary delay which the United States allowed to take place for political effect at home, the matter was not brought to an issue until the Conservative

party had been defeated at the polls, and Lord Salisbury and his colleagues were about to yield office to Mr. Gladstone and the victorious Liberals. The selection of delegates thus fell upon a ministry whose chief was a gold monometallist of the severest type, who deemed it not improper to urge upon Parliament, as an objection to international bimetallism, the advantage which England, as the great creditor country of the world, derived from the appreciation of gold; while the chancellorship of the Exchequer devolved upon Sir William Harcourt, than whom, probably, no educated man in the Kingdom was less capable of treating the question of international bimetallism in the spirit of liberality. The result was that England appeared at the Conference in Brussels, on the 22d of November, 1892, with a delegation opposed to the professed objects of the gathering; though bimetallism was well represented by Sir William Houldsworth, while Mr. Alfred de Rothschild exhibited a disposition to favor the work of the Conference, so far as was compatible with the English position. British India was represented by General Strachey and Sir Guilford Molesworth, the latter a pronounced bimetallist. The subjoined declaration of the position of England was offered by Sir Rivers Wilson:

"I desire to explain to the Conference the attitude of Her Majesty's Government upon the monetary question. The invitation of the United States in its original form contemplated the meeting of a Conference to examine the possibility of establishing, by international agreement, a fixed relation between the values of the two precious metals. Her Majesty's Government did not find it possible to accept an invitation conveyed in terms which might give rise to a misunderstanding-

ing by implying that the Government had some doubt as to the maintenance of the monetary system which has been in force in Great Britain since 1816. At the same time, the commercial interests of Great Britain, as well as those of India and of the British possessions in the far East, where silver alone is used, did not allow Her Majesty's Government to view with indifference the drawbacks resulting from the fall, and, more especially, from the fluctuation in the value of silver. Her Majesty's Government therefore accepted the invitation of the United States in its modified form ; that is to say, to consider what measures, if any, could be adopted for the purpose of increasing the use of silver as currency." (p. 112.)

The United States was represented by the American Minister at Brussels, by Senators Allison and Jones, by Mr. McCreary of the House of Representatives, by Mr. Henry W. Cannon, of New York, and by President Andrews, of Brown University. Holland appeared by two delegates of great ability, Mr. Van Den Berg, President of the Netherlands Bank, and Mr. Boissevain. The attitude of this delegation, worthy of the Classic Land of Finance, was that of prompt and courageous acceptance. The chairman, Mr. Van Den Berg, said:

" Our ideal is an international bimetallic agreement. Such an agreement we fully believe to be possible and desirable, both from the theoretical and also from the practical point of view (p. 77). . . We in Holland are unanimous in the belief that, should an international bimetallic agreement admit gold and silver to free coinage at a fixed ratio, the union between the two metals would be re-established and would be maintained on a fixed basis, as in fact it was maintained during nearly three-quarters of a century, in spite of the extreme variations in the production of gold and silver, respectively, which took place in that period. I need not remind you, gentlemen, that from 1800 to 1820 silver yielded 75 per cent. and gold 25 per cent., only, of

the total value of the precious metals produced. Gradually the production of gold increased, while the production of silver continually diminished relatively to the production of the yellow metal; until, after the discovery of the Californian and Australian mines, the two metals arrived at a position exactly the reverse of that which I have just mentioned, for it was gold that now yielded 75 per cent. of the world's production, while silver sunk to 25 per cent., and took the place which gold had occupied half a century before. Well, notwithstanding this complete inversion of the respective production of the two metals, the ratio between gold and silver remained nearly fixed and steady, and I believe that that ratio would have been maintained permanently if the use of silver had not been proscribed by legislative enactments. It must be admitted that the increase in the production of silver, of which we hear so much, has only a very slight importance in comparison with the development in the production of gold toward the middle of the century which is now approaching its close." (p. 124.)

Belgium, the country in which the Conference was held, furnished the presiding officer, M. Montefiore Levi whose remarks concerning the importance of a par-of-exchange between gold countries and silver countries, I have already quoted (p. 145-6). Among the other delegates was M. Allard, a bimetallist writer of high repute. Many of the names occurring in the proceedings of the Conference are familiar to readers of the *procès-verbaux* of the Conferences of 1878 and 1881, while others of the notable names of the earlier period are missing. The attitude of England in the Conference at Brussels was hardly more unfavorable to any practical result than was that of France. Ever since the Conference of 1881, France had assumed the position, not formally but virtually, of having done

her share in the matter, and of being now disposed to await the pleasure of the European states. For years after the great discussion began in 1875 or 1876, France had been charged with having a particular and selfish interest in looking to the rehabilitation of silver. Even the courtesies of Conference did not suppress the intimation that other states were very friendly and benevolent to take any interest, at all, in the subject. Of this France had, naturally enough, become tired. She had put her finances into the best condition of any country in Europe; she had, with a rapidity which has been the marvel of the generation, effaced the marks of war from her cities and her fields; and had filled her purse, through a union of industry and frugality which cannot sufficiently be admired. Occupying, thus, a position of advantage, she did not propose to have herself regarded as a suppliant, or in fact as having any other than a general interest in the subject.

Germany appeared at Brussels by a delegation. The following is the statement of its position by Count Alvensleben: "Germany being satisfied with its monetary system has no intention of modifying its basis. The Imperial Government does not, however, fail to recognize that the continual oscillation and the considerable fall of silver are much to be regretted from an economic point of view, and that it would be advantageous to the economic interests of the Empire if these evils could be remedied in a lasting manner."

The Conference was, as a matter of course, without result. There is reason to suppose that some of the powers represented had almost a feeling of griev-

ance at being put to the trouble and expense of accepting an invitation which they could not, with due regard to international comity, decline. From the first, it was evident that nothing like a positive result in the direction of international bimetallism was to be expected. Several plans, some of them framed with much ingenuity, were proposed by individual members, looking to an increased use of silver. But, inasmuch as the delegates of the United States, the nation which had called the Conference, were not disposed to regard anything short of full bimetallism as satisfactory, these plans were, one after another, dropped or withdrawn; and, on the 17th of December, the Conference, in the language of the resolution, "suspended its labors and decided, should the governments approve, to meet again on the 30th of May, 1893." Owing to the general conviction that nothing could come from the reassembling of the Conference, the matter was allowed to lapse; and this effort to bring about a general agreement of the nations was, like those of which we have already spoken, without result. What the future may bring forth, no man is wise enough to predict; but it appears to me, as it has for a long time appeared, that, should international bimetallism ever be established, it will be through diplomatic negotiations quietly conducted, without speech-making or ceremony, between the four nations, France, England, Germany, and the United States, any three of which can, at any time, bring about the result. If those four nations, or any three of them, shall ever agree to act together in this matter, the programme thus formed would secure the immediate

and unquestioning assent of a sufficient number of the less important states to carry it to a triumphant issue.

The ineffective conclusion of the Brussels Conference was hailed with much jubilation by the enemies of bimetallism in every land. It was declared that at last "the silver bubble" had burst, and that now the world could have peace and monometallism. This impression was strengthened when, a few months later, the increasing ill effects of the American silver purchases compelled the repeal of the Sherman Act, and the British Government closed the mints of India to silver*—measures competent to produce singly a very large effect; and which, coming thus together, for a time broke the silver market down as never before and produced by far the lowest price of that metal in terms of gold ever known in the history of mankind.† This, at any rate, if the previously announced death of bimetallism, on several successive occasions, had proved premature, could not fail to be the last of that pernicious heresy. But the truth does not die, cannot be killed. The immortal verity of a world's money as wide as the world's trade has reasserted itself with

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* Mr. Balfour speaks of the Indian currency of 1895 as "the strangest product of monometallist ingenuity which the world has ever seen—a currency which is as arbitrary as any forced paper currency which the world has ever heard of, and which is as expensive as any metallic currency that the world has ever faced, and which, unhappily, combines in itself all the disadvantages of every currency which human beings have ever tried to form."

† In January, 1895, the "index-number" of general prices was 60; the gold price of silver was 45.1; in each case, as compared with 100 as the average of the twenty-five years 1853-77.

more than its pristine vigor. Within the briefest period after these two measures, which were supposed to be alike the death and the burial of bimetallism, we see, in 1894, the Royal Commission on Depression in Agriculture appointed in England, and the Silver Commission appointed in Germany to investigate the effects of the demonetization wrought by Germany herself, twenty-two years before; and, only a few months later, we witness the astonishing, the astounding phenomenon of the German Reichstag declaring, by a vote of more than two to one, in favor of negotiations for monetary reform; the imperial Chancellery by a vote of ten to four rejecting the proviso that, in the course of such negotiations, the single gold standard should not be compromised; and the British House of Commons, by unanimous vote, adopting, in February of 1895, the resolution "That this House regards with increasing apprehension the constant fluctuations and the growing divergence in the relative value of gold and silver; and heartily concurs in the recent expressions of opinions on the part of the Government of France and the Government and Parliament of Germany, as to the serious evils resulting therefrom. It therefore urges upon Her Majesty's Government the desirability of co-operating with other powers in an International Conference for the purpose of considering what measures can be taken to remove or mitigate these evils."

CHAPTER VIII.

REVIEW AND SUMMARY.

WE have passed over a wide field of monetary history. A brief review may be instructive.

(1) We saw that the precious metals in the earliest ages of mankind were essentially non-economic, both as to their production and as to their use. Had gold and silver been mined by free hired labor, and had the product gone into circulation as money, such vast accumulations could not have taken place, in the then existing state of the arts, of industry, and of commerce. It was only because the mines were worked by convicts, by slaves, by serfs, or by prisoners of war, while the product became royal or sacerdotal treasure, that the yield could be carried to such a height and maintained there.

(2) We saw that the invasion of Persia by Alexander and the subsequent progress of Roman conquest brought the long-accumulating store of the precious metals into circulation as money. The higher prices, thus created, operated of themselves to check production, while the inefficiency of the Roman administration of mines caused a further decline. When to this was added the effects of the barbarian invasions, felt first and with the greatest severity in the mining

regions, like Thrace and Spain, the yield of the precious metals fell rapidly off, and soon almost altogether ceased.

(3) We saw the accumulated mass of money, which had been produced under conditions wholly non-economic, left, thus, without reinforcement, and subject to continual impairment by wear and tear and accidental loss, waste away, through centuries, like a vast iceberg drifting into southern seas, until, at the close of the eighth century, it is estimated that the stock was scarcely one tenth of that which existed under Augustus.

(4) We saw that to this long silver famine—gold had early ceased to be even thought of as money, except through the trivial coinage of the Moors in Spain and the larger, though still not considerable, coinage of the rulers of Byzantium—is reasonably attributed no small part of the immobility, depression, and hopelessness of the early middle ages.

(5) We saw that, at about the beginning of the tenth century, the discovery of new mines of silver in Europe and the revival of activity in some of the older districts furnished a supply which, at the least, repaired the waste of the existing stock, and perhaps caused some small increase; that the course of the earlier crusades brought the precious metals more freely into Europe; while, at the beginning of the thirteenth century, the Frankish occupation of the Eastern Throne, carrying with it the possession of extensive hoards which had escaped the ravages of time and the control of perhaps the only open mines of gold in the world, brought the latter metal into

Italy and France in amounts so considerable that, at about the middle of that century, began again the coinage of gold, after a disuse extending over many hundreds of years.

(6) We saw that from the gold coinages of the thirteenth and fourteenth centuries arose the real bimetallic problem. With the scant supply at the best existing, and under the influence of wholly vicious traditions and theories regarding the precious metals, the several nations set themselves, by every device and contrivance, and even by violence, to keep and to hold the largest possible amounts of gold and silver, without regard to the normal distribution of the money metals through the agency of price. Gold and silver being esteemed the only true wealth, the prime object in production, the one successful result of trade, their export in the ordinary course of commerce was deemed a national loss, to be guarded against by every kind of law or regulation, enforced by penalties the most severe.

(7) We saw that, under the domination of these ideas and motives, the nations resorted to policies which were individualistic, selfish, and mutually antagonistic, with no thought of a general interest, with no purpose to establish a world's money carrying the largest benefit to all, but wholly framed to seize and retain the largest possible share of the common stock. To this end, ratios between gold and silver in the coinage were established, which were changed whenever the object in view seemed to require it.

(8) We saw that, under such a system, one metal or the other was continually flowing out of one coun-

try, into another, according as the one or the other bid higher for it, the Jews and Lombards developing an almost preternatural acuteness and activity in promoting this exchange of the metals, and reaping a rich harvest from the greed and fatuity of the contestants for the scanty supply then in existence. We saw that the inadequacy of that supply—the stock of both metals being painfully insufficient for the wants of trade—led to a corruption and debasement of the coin almost inconceivable, which greatly complicated the problem for those rulers who sought to keep both metals in circulation within their respective countries, and which is largely responsible for the traditional notion that gold and silver cannot be kept in concurrent circulation. We saw, however, that the rapidity and completeness with which the metal which at any time and in any place was undervalued in the coinage was drained away, has been enormously exaggerated by many economic writers, especially those opposed to bimetallism, since undoubted facts, testified to by the highest authorities, show that this movement never began as early, proceeded as rapidly, or continued as long as it has been customary to allege.

(9) We saw that the discovery of America by Columbus and the conquest of Mexico and Peru, produced a monetary revolution. Silver poured in vast floods from the newly opened mines, causing a tumultuous rise of prices in Europe and extensive changes in the ratio between the two metals—which moved, from about 11 of silver against 1 of gold to 15 of the former against 1 of the latter; setting in motion economic forces of the highest order for the redistribu-

tion of wealth among the different classes of society and among the different nations, and supplying both the means and the impulse for an extension of trade which changed the face of the industrial world.

(10) We saw that, by about 1640 or 1660, the first effects of the American discoveries had been realized. The enormous increase of the money-supply had not only wrought a social and industrial revolution, with consequences, on the whole, most beneficent; but had brought about changes in government policies and in the popular philosophy regarding trade and money. The abundance of silver, together with the advance of thought, put a final stop to that corruption and debasement of the coin which had wrought such disgrace and disaster in almost every land. The mints of Europe generally became honest; while a better view of the relations of money to national welfare caused a relaxation of the laws prohibiting or regulating the movement of the precious metals.

(11) We saw that England, in 1666, adopted a system which, with whatever defects, contained the promise of the future, silver becoming the standard, with gold rated to it, from time to time, by proclamation. We saw that the operation of this principle was impeded by the state of the silver coinage, which, no longer by the frauds of government but by the acts of sweaters and counterfeiters, had been reduced to a frightful and intolerable condition. In the great recoinage of 1696, under the leadership of a noble group of financiers and statesmen, we witnessed the triumph of high principles and sound monetary views; the coinage was reformed, and the bimetallic system

at last inaugurated, though on a partial and unsatisfactory basis. We saw that gold and silver did actually remain for a time in concurrent circulation, although the overrating of the guinea, in spite of the protests of Sir Isaac Newton, continued to cause the export of the full-weighted new silver. We saw that the refusal of the authorities to remedy this patent defect led to the gradual exhaustion of the silver coin. We saw that, from the state of suspension which continued through the Napoleonic wars, England, under the leadership of the second Lord Liverpool, emerged as a monometallist state, with gold as the sole money of full value, silver being reduced to the rank of subsidiary money.

(12) We saw the United States in 1792, inaugurate a nominally bimetallic system, upon the recommendation of Hamilton. But through the adoption of ratios between gold and silver, at first disparaging to the former, whether purposely or not, and then, in 1834, with an unquestioned intention, unduly favorable to that metal, the bimetallic system was rendered nugatory, though without any legitimate impeachment of that system, on either theoretical or practical grounds.

(13) We saw France, in 1726, establish a ratio between gold and silver in the coinage, which, being far nearer the market ratio than that of England, retained both metals in concurrent circulation, though with a constantly diminishing proportion of gold, down to the time, or nearly to the time, when, in 1785, Calonne, in connection with an extensive recoinage, introduced the famous ratio of $15\frac{1}{2}$ to 1. We saw that this remained the legal ratio in France until the begin-

ning of the present century, though its influence was greatly impaired and for a time altogether neutralized by the issue of inconvertible paper money, in enormous volumes, during the revolutionary period. We saw that, in 1803, France, having drifted out of the state of suspension, did, under the great First Consul, re-establish the free (though not gratuitous) coinage of the two metals, at the same ratio. We saw this system, almost from the first, vehemently assailed by changes in the production and use of gold and silver. Rapid and extensive as those changes were, we saw France hold to her system, freely coining the metal which, under the conditions existing, tended to become less valuable than at the ratio. We saw that, through these immense operations on the market-for-bullion, France, though standing alone in this matter, kept the two metals close to the legal ratio, the deviations therefrom being for the most if not for all the time no greater than were to be explained by the charges for mintage and the cost of transporting specie from the London and Hamburg markets. Throughout this period, both gold and silver remained money in France, though the proportion of the latter tended continually to increase and the proportion of the former to decline. We saw that, before the stock of gold in France had become exhausted, an overwhelming change took place in the conditions of the production of the two metals. The almost simultaneous discovery of the gold-fields of California and Australia—two of the three greatest “finds” of the yellow metal in the world’s history occurring within three years—and the rapid development of the alluvial deposits of the

Ural Mountains brought upon the bimetallic system of France a shock which, it was generally believed, could not possibly be withstood. Country after country demonetized gold, as becoming too cheap for use as money; and even in monometallic England propositions for abandoning the gold standard and for founding life-insurance companies upon a silver basis were freely offered and discussed. Yet the statesmen and financiers of France held by their principles; and her moneyers stood at their posts, coining gold in quantities which thrill us in the reading. During eight years, from 1853 to 1860, France imported 3082 million francs in gold, and parted with 1465 million francs in silver, which made the total bullion operation amount to 4547 million francs.

Again, and this time in an overwhelming degree, the validity of the bimetallic system was established. The maximum momentary effect of more than doubling the world's stock of gold was to pull the metals apart by $4\frac{3}{4}$ per cent.; while the permanent effect upon the ratio was only $1\frac{1}{2}$ in 100. During all this period, the variations from the legal ratio in France seldom exceeded the cost of mintage and of transporting specie to the French mint. Thus Europe was saved from a catastrophe the destructive effects of which can hardly be conceived; and the bimetallic system emerged from this extraordinary trial unbroken and triumphant. We have seen how freely the validity of this cause has been admitted by monometallists like Chevalier, of France; Lexis, of Germany; Cairnes, Bagehot, Jevons, Giffen, and Farrer, of England. We have seen how full has been the recognition and

acknowledgment, by these and other economists holding the same faith, of the benefits conferred upon mankind by the establishment and maintenance of an approximate par-of-exchange between gold and silver, the world over, through the action of France.

We saw governors of the Bank of France, like Messrs. Rouland and de Normandie, and financiers like the Baron Alphonse de Rothschild and M. Léon Say, confidently maintaining the position that, in rendering this inestimable service to mankind, France considered her own national interests and promoted her influence among the nations.

(14) We have seen how, immediately after the Franco-German war, and, it is reasonable to believe, largely in consequence thereof, Germany passed over from the silver-using to the gold-using states, and thus brought upon the bimetallic system a strain which, in the weakened and depleted state of France, it was not thought possible for her to endure. The mints of France and of her colleagues of the Latin Union were closed to silver; and thus, for the first time since the discovery of America, silver ceased to be money of full power and free coinage in the States of Europe, generally.

(15) In the last chapter we saw into what a state of agitation and turmoil trade and production were brought by the demonetization of silver, which had been thus effected. We saw the rapid succession of legislative committees, commissions, and international conferences called to contemplate the situation, and to discover some possible means of escape out of this disorder. I need not recapitulate any part of that

great debate. I shall only ask attention to a brief summary of the principal results which seem to have been reached in the discussion of the effects of demonetization. I shall attempt no forecast of the future.

THE BROKEN PAR-OF-EXCHANGE.

The experiences of trade and production since the demonetization of silver have, in the view of bimetalists, demonstrated in a most remarkable degree the thorough validity and the great importance of that par-of-exchange between gold and silver which it is the prime purpose of bimetallism to secure. From the very first, the fluctuations which the action of Germany in 1873 introduced into trade were of the most serious character, working great loss to international commerce, and by consequence to production. So early as 1879, the London *Economist* spoke as follows:

"Uncertainty must attend on many, if not on most, trading ventures; but when, to that uncertainty, an additional risk of loss, ranging from 5 per cent to 10 per cent on each cargo, is added, it is no wonder that the most cautious find themselves deceived in their calculations, and merchant after merchant admits that, in lieu of profit, he has, for some considerable time, reaped nothing but loss from trade with silver-using countries."

The disadvantages which the first financial paper of the world thus depicted in 1879 have since become almost universal. International trade has been brought largely into the condition of gambling; and the two great divisions of the world have been involved in all

the embarrassments which beset the intercourse of specie-paying nations with those having inconvertible paper money. I have quoted testimony to this effect from two of the principal commissions which have investigated the state of trade and the economic experience of mankind during the period of demonetization. I have also liberally introduced quotations to the same effect from the writings of some of the first of living economists, many of them gold monometalists. If by such evidence this point is not deemed to be established, no amount and character of testimony would suffice.

Some of the most interesting and remarkable developments of the period following the demonetization of silver have been found in the effects produced upon the industry and trade of Oriental nations. I have more than once commented upon the rapidity and completeness with which writers of the *à priori* school in economics are accustomed to assume that readjustment will take place after important changes, whether in the standard of value or in the conditions of production or exchange. I have referred to the writings of Professors Cairnes and Cliffe Leslie to show that, after the discovery of America, the effects of the new silver extended from land to land, only with long intervals; and, in the result, were irregularly experienced by different nations, by different classes of economic agents, and even by different commodities. Even after the gold discoveries at the middle of this century, when, it might be supposed, improvements in trade, in transportation, and in the communication of intelligence would have secured an almost instan-

taneous propagation of economic forces, Prof. Cairnes has abundantly shown, in his "Essays on the Gold Question," that the influence of the new money proceeded, from commodity to commodity, from class to class, and from country to country, with still very considerable intervals; and that this retardation of the forces thus operating produced large, important, and permanent economic effects. That I may not be suspected of exaggeration, I quote the words of this most authoritative writer:

"Before this result is attained, a period of time, longer or shorter according to the amount of the augmentation and the general circumstances of commerce, must elapse. In the present instance, the additions which are being made to the monetary systems of the world are upon an enormous scale; and the disturbances effected in the relation of prices is proportionally great. Under such circumstances, it is very possible that *the inequalities resulting may not find their correction throughout the whole period of progressive depreciation*: a period which, even with our present facilities of production and distribution, may easily extend over some *thirty or forty years*. During this transitional term, the action of the new gold on prices will not be uniform, but partial. Certain classes of commodities and services will be affected much more powerfully than others. Prices generally will rise, but with unequal steps."* (p. 56.)

*In a pamphlet recently published, from the pen of the Rt. Hon. J. Shaw Lefevre, the two following propositions are maintained: (a) If the fall of prices had been mainly due to the appreciation of gold, that fall would have been "equally observed in all products, subject, of course, to some temporary or local exceptions for which special explanations could be given." (b) If the fall of rents in England had been mainly due to the appreciation of gold, it would have taken place uniformly, with corresponding exceptions. Inasmuch as the fall of prices has been

In the light of such facts, the monometallists were clearly not justified in assuming that the readjustment of international values, made necessary by the demonetization of silver in Europe, would be early or easily effected. But their error becomes altogether inexcusable when we consider how well it was understood that changes of any nature are brought about with exceptional difficulty and delay among the peoples of the East. The force of custom, tradition, and caste there rises to its maximum. So great is the inertia of the Eastern peoples under economic shocks, even the most tremendous, that at times it seems as if those shocks were not felt at all.

The monometallist assumption I have referred to was to the effect that, as silver should fall in comparison with gold, silver prices at the East would correspondingly rise; and thus the trade-relations of the

very irregular (far beyond what would be embraced in the saving clause) as respects different commodities, and as rents have not fallen with any approach to uniformity, Mr. Shaw Lefevre declares that the appreciation of gold has not been the cause of both or of either of these effects.

On the contrary, Profs. Cairnes and Cliffe Leslie have shown that irregularity in the rise or fall of prices is the very law of currency contraction or inflation. As to rents, it would be easy to show, did space permit, that, in addition to the variations which they naturally would, equally with prices, experience as the result of general changes in the currency, they have an additional reason for variation, special to themselves. Inasmuch as economic rent is not taken from all lands in proportion to the produce, but is taken only from the better lands, and from these only in proportion to the excess of value in the produce over cost of production, changes either in the cost of production or in the price of produce, due to general currency changes, would affect rents with exceptional irregularity.

two halves of the commercial world would speedily be readjusted, to suit the new conditions. In making this assumption, the writers in question not only excluded the remarkable inertia of the Eastern peoples, but they failed to take into account another fact, of very great importance in the connection, namely, that silver in those regions is not merely or mainly money, but treasure; it is largely looked upon by the inhabitants as an end in itself, and not as a means to other ends. It is estimated by the highest authorities that of the entire stock in India only about one-third is in circulation,* the remaining two-thirds being held in hoards by the natives, peasants and princes alike; or in the form of images, articles devoted to religious uses, and personal ornaments. The actual result, as contrasted with the result anticipated, has been that, while silver has fallen in Europe to only about one-half its former value in gold, silver prices in the East have remained nearly constant. So far as the East Indian laborer applies the silver he may obtain for his services to the purchase of treasure or of ornaments, that silver is just as good to him as it was before demonetization. His ideas regarding it have been fixed by untold centuries of its use among his people. As Sir D. Barbour says: "To the mind of the Indian ryot, the rupee, instead of the pound sterling,

* In Sir R. Giffen's examination, before the Commission on Agriculture, the estimate of Mr. F. C. Harrison is introduced, that the silver in India amounts to 510 *crores* of rupees, of which 166½ are in active circulation; considerably less than 50 hoarded in the form of rupees. "Roughly speaking, it may be said that 300 *crores* may be held in India in the form of bullion, obsolete coin, and ornaments." The *crore* is ten millions.

is the one fixed point in an ever-changing world; and gold rises and falls in price, in his bazaar, like the most vulgar of marketable commodities." So far as he may wish to use his wages for the purchase of the services of others in his own community, the silver is substantially as valuable as before. The same is true of commodities which are produced to be consumed at home. As Prof. Lexis says, in an article from which I shall soon have occasion to quote more at length: "Foreign trade touches only the surface of Indian and Chinese national economy; and, quantitatively, it forms only a very small part of the whole trade in those enormous States." It is only in the production of goods which are to be sold largely in competition with those of gold-using countries that even a movement towards readjustment has taken place. The consequence of all this has been an increase of exports from the East to Europe,* and the rapid development throughout Eastern countries of factories and work-shops to supply demands which were formerly met by importation from Europe. This result was anticipated by Mr. Bagehot as early as 1876. That sagacious economist, in his testimony before the Committee on the Depreciation of Silver, made the following remarks:

"I should say the effect of the depreciation of silver was to cause an increased export of goods from India to this country, a diminished export from this country to India." (No. 1367.) "I think the increase of the export of goods from India to this country will arise in this way; a merchant in London,

* See the brilliant book of M. Edmond Théry, Editor of *l'Économiste Européen*, *La Crise des Changes*, chapters 10 and 11.

who is thinking of importing goods from the East, looks at the price current in Calcutta, and he sees the price quoted in rupees. The merchant in London is in possession of sovereigns in London, therefore he has two operations: first, he has to buy his rupees in India; next, with those rupees he has to buy the article which he saw in the price current. The question of profit and loss to him is compounded of the result of those two operations; if, therefore, he can buy his rupees in Calcutta on more favorable terms, he will find it to his interest to go into a speculation which would not otherwise be profitable. If he can get rupees at 1s. 8d. instead of 2s., and he can buy his goods in Calcutta with the same number of rupees, that is so much extra gain to him. Conversely, the English exporter of goods to the East will receive payment in rupees, and he will have to sell those rupees; and if he sells them for a less amount of sovereigns, he will suffer a loss, and that is a discouragement to exporting from this country to India." (No. 1368.) At other places in his testimony he said: "Those countries [the East] are the great majority of the world; the circulation of silver in those countries is something enormous." (No. 1370.) "Gold will buy a great deal more silver than it used to do; but the silver prices of articles in Calcutta have not been affected: silver is not, as yet, depreciated in the East." (No. 1377.) "The depreciation of silver has necessarily caused discouragement of export to the East." (No. 1398.)

The discouragement of exports from England and generally from Europe to the Orient, which has been stated above, and in part explained, was, from the very first, a subject of much distress and anxiety in the first-named country, and had much to do with the appointment of the Select Committee in 1876. It was, however, generally held that, painful as were the losses then suffered from this cause, these must necessarily soon be at an end, through the inevitable readjustment which was to take place according to the philosophy of the monometallists. But when, twelve

years later, the Herschell Commission had occasion to report on the same subject, they found themselves obliged to state that the effects of demonetization in this direction still continued; and that their force had not diminished, but increased. "It may safely be said," remarked the Commissioners in their unanimous report, "that there is no evidence of a rise of prices in India. The purchasing power of the rupee has not fallen." Meanwhile the continued operation of this cause over an additional period of twelve years had seriously affected English industry, and had brought the cotton manufacturers of England to a state of dire distress, which speedily converted them to bimetallism. Lancashire became one of the chief centres of agitation for the restoration of the broken par-of-exchange. In the report of the Commission on the Depression of Trade, issued in 1886, the evils from which English industry had been suffering ever since 1873, the date which the Commission fixes for the beginning of the period of disturbance and disaster, are even more fully and elaborately set forth.

Since the date of the last testimony cited eight more years of disaster have passed; and still the promised readjustment has not taken place. It was not until the repeal of the Sherman law in the United States and the closing of the East Indian mints, that silver prices in the East could be said to have risen at all; and, even at the height of that rise, now partly recovered from, it was still true that the value of the rupee in Eastern commodities constituted a high premium upon local production, with results increasingly disastrous to the gold-using States. And it is to be said

that the impulse thus given to Eastern manufactures was not in the nature of protection, which secures only the home market, but was, the rather, in the nature of a bounty upon export, which must be felt by all competitors. During the past four or five years the reports of the English consuls have been full of most unwelcome information regarding the rise and growth of new branches of industry in India, Japan, and even China.* The statistics of cotton factories established in Japan, for example, show an exceedingly rapid growth; while India has exhibited an increasing power to produce for herself articles which formerly she imported from Europe. Not only so; but, as Mr. Barclay stated in his testimony before the Herschell Commission, Indian manufacturers are already cutting English manufactures out of the neutral silver countries of the East. The lists of Japanese industries read almost ludicrously for us, though they furnish to England very serious matter for reflection. Among the articles manufactured, I note umbrellas for China, matches, sulphuric acid, hardware, lamps, portmanteaus, boots, hats, pocket-handkerchiefs, and paper. Japan is shipping Portland cement to China; while her coal, under the bounty afforded by the rate of exchange, is enabling her to supply both China and India, where formerly British coal was used in vast amounts. Even China has, under the same encouragement, turned herself to manufacture. I note in a recent report that China has already begun to make her own pianos, in the sense, that is, of turning out and finishing all the

* See report of Indian Currency Commission, American reprint, pp. 593, 599, 609.

woodwork, though still using European tuning-plates, keys, strings, etc. China is even manufacturing British beer!

So conspicuous have become the effects of this cause in prejudice of English interests, that even in the *London Times* we find the following statement under date of Nov. 20, 1895:

"One does not require to believe in bimetallism in order to recognize the enormous advantages which the manufacturers in a silver country enjoy in competing with gold countries. The cost of the necessities of life has remained absolutely unaffected by the fall in silver; and the workman is therefore quite content to receive the same wages as formerly. But the wages bill of the employer in China or Japan has remained actually the same; it stands, in relation to that of his Western competitor, at only half the figure to which it formerly amounted. . . . The depreciation of silver might in fact be said to operate as a system of protection in favor of the industries of silver countries as against those of gold countries."

On the same point we have the testimony of the Chairman of the Hong Kong and Shanghai Banking Corporation, under date of August 18, 1894.

"Now that we have actually been working, for a considerable time, on a low level of exchange, we can see plainly, as we have anticipated and have not hesitated to predict would be the case, that its effect is to stimulate exports from all silver-using countries, and grievously depress imports from all gold-using ones."

It will appear what a serious matter the "break of gauge"—the dislocation of exchange—has proved to be, in its influence upon British and all European trade and manufacture. But a more important consideration still remains to be noted. If it be true, as I believe it is, that English trade, especially with the

Orient and with silver countries generally, has for a long time stood largely on the basis of custom, tradition, and use, the loss to England from this cause will not be measured by what she has had to bear from 1873 down to the present time, or even down to some later time, when the long-postponed readjustment shall at last take place. These Eastern countries—and I believe the same is true in a degree of Mexico and many South American states—if manufactures are once fairly established in them, under the force of the tremendous bounty which is given by the dislocation of exchange, are not going back to English markets when that cause shall cease to operate. Their people have hitherto been accustomed to buy English goods, largely because of the organization of British commerce and the force of tradition, custom, and use. British ships have gone everywhere. British factors* and agents have been found in every port or mart; their barbarous or semi-civilized customers have clung to British trademarks, British styles, and British fashions. The hold of tradition, custom, and use, once broken, can never be restored.

I have now said practically all that needs to be said regarding this very important branch of our subject; but, as the theme is a new one, and as there is always, in such matters, room for exaggeration of statement and exaggeration of opinion, I think it desirable to quote, at some length, from a carefully reasoned article by Prof. Lexis, of Germany, whom I have termed the first economic statistician of the world, in the *Economic Journal* for December, 1895:

“ The expenses of production of Indian commodities, as

expressed in silver, have not increased nearly in proportion to the fall of silver as measured in gold [p. 537]. The falling value of the rupee favors the competition of India in Europe. Unless the export dealers speculate, it brings them no *extra profit*; but it does enable them, when gold prices are falling in the general market, to effect a sale at lower prices with normal profits. (p. 538.) If it is true that wages and other expenses of production have not risen in nearly the same proportion as the rupee has depreciated; if the purchasing power of the rupee in 1892 was, on the whole, only little, or perhaps not at all, less than in 1881, then those people in India who are interested in the export of wheat have been more favorably situated during this period than European landlords, not only because of the conditions of production and transport, but also to a certain extent because of the fall of the rupee. How the advantage derived from this source has been *distributed* between the export merchants, the middleman, and the producers is a matter of indifference; in any case the fall of the exchange has acted as a continuous stimulant to export, which would not, without the stimulus, have been so extensive as it actually has been, and would have come to a standstill at a price above that to which, as things were, it actually fell. (p. 540.) It is not true that, when Indian export is favored by the exchanges, it will automatically produce an increase in import also." (p. 541.)

[This advantage, he explains, is often only a relative one, checking or lessening a *loss* connected with the export, and thus making it possible to maintain for a longer period competition with other producers; e.g., 1893 and 1894, when India received the lowest price for corn in gold that had been known for centuries; yet the relative advantage from the fall of the rupee was at this time greater than it had ever been.]

"Nor can we say how long these effects would continue if the value of silver were permanently fixed at somewhere about its present height. Certainly it would take much longer to reconcile the standards of value of European gold countries with one of the great Asiatic empires, than for the same process to take place with a civilized European country, such as Austria, which is completely involved in the movements of

modern trade. Many writers seem instinctively to refer prices in the great Asiatic silver-standard domain to gold as the only standard of value, and not to realize that *these countries have an independent standard for themselves*; in India, indeed, this is no longer silver, but the rupee with a credit value above its silver value. This independent standard may certainly be influenced and modified by the exchange of commodities with the gold-standard countries; but still it is clear that a precious metal must have a far more stable value in a region with a population of several hundred millions, where there is an unlimited use for it as money, than in the Western world, where it is regarded merely as an ordinary commodity for which there is little demand. *Foreign trade touches only the surface of Indian and Chinese national economy, and quantitatively it forms only a very small part of the whole trade in these enormous States.* Hence even if the ratio between gold and silver should be fixed unalterably at 30:1, it would be probably be many years before the relative purchasing power of silver in East Asia with respect to labor and home commodities would be completely in accordance with European prices." (pp. 542, 543.)

THE FALL OF PRICES.

But the chief controversy has raged around the question as to the fall of gold prices and the appreciation of gold. These two expressions are by the bimetallists treated as in effect synonymous. Such was the usage of economists without distinction, before this controversy began. Jevons and all other writers who dealt specially with the subject of currency, when they spoke of the fall of gold prices meant an appreciation of gold; when they spoke of the appreciation of gold, they meant only a fall of gold prices. Some monometallists, however, especially from the time of

the Herschell Commission, have felt themselves driven to deny the identity of these expressions, and to denounce the use of the word, appreciation, except in a highly technical sense. They declare that it can properly be applied only to cases where the fall of gold prices results from causes affecting gold, and not from causes affecting commodities. Thus, they would say that, if gold had largely diminished in quantity, commodities remaining the same, there would be a real appreciation of gold, since here the change in prices would result from a change affecting gold; but, on the other hand, if gold remained the same and commodities largely increased, through the discovery of new resources in nature and of new arts in industry, the lower gold prices would not constitute a real case of the appreciation of gold.

The question is, after all, one of the use of words only. My own view inclines to regarding the term, appreciation of gold, as being the same thing with the fall of general prices (1) because the two terms have been used in this sense throughout a vast amount of economic literature, by writers of the highest reputation in currency and finance, and that without challenge or question until the controversial necessities of the monometallists caused them to insist upon the distinction. (2) Because, however just may be the distinction between two causes which might operate, at the same time, from different directions, to produce a fall of gold prices, it would be impracticable to divide the result accordingly. No human being could possibly know enough to say how much of such an effect was due to one or to the other of these causes. At

the same time. we should bear in mind, and be free to state in argument, that an appreciation of gold may sometimes be due to causes affecting the metal, sometimes to causes affecting commodities, sometimes to both in conjunction. This I understand to be the view of Sir Robert Giffen, who, in his testimony before the Commission on Depression in Agriculture, said: "We should confine ourselves to a strict use of the language and speak of the appreciation of money as merely the equivalent of a general fall of prices; and then discuss the question how far and in what sense that can be considered due to the contraction of money."

Passing by this point, it may be said that, ever since 1873, there has been an almost continuous fall of prices in terms of gold. According to some of the statistical tables which have been prepared, there have been, at one or two points, slight temporary reactions; but, in general, the movement has been steadily and rapidly downward. In the effort to mark off and measure the steps of this fall of prices—this appreciation of gold, according to the sense given to that term—a considerable variety of so-called index-numbers has been employed. Seven or eight of these have been introduced into the discussion; a few are used far more than the others. The principal index-numbers are those of the London *Economist*, Dr. Soetbeer's, Mr. Sauerbeck's, and the Hamburg tables. An index-number is constituted by taking the aggregate price of a certain number of articles (in definite quantities), in a certain market, for a certain length of time, as the base or standard, generally called 100. The aggre-

gate price of the same articles, in the same quantities, in the same market, at dates earlier or later, affords a comparison which is supposed to determine, with a reasonable degree of accuracy, the appreciation or depreciation of the money used in that market. The value of such comparisons will largely depend upon the care and good judgment with which the articles have been selected for the index-number, and upon the value assigned to each of them, respectively, that is, the quantity of each which is taken for the purpose. If, for example, the price of a pound of flour, a pound of pepper, and a pound of tea were to be taken as of equal importance for the purposes of such a table, a distinctly false result might be produced. It is necessary to have consideration of the quantities of the several articles which enter into ordinary consumption; and to "weight" each article, with reference to its comparative importance or insignificance. The range and the number of the articles taken are also matters of great delicacy. There must be a due representation of the vegetable, the animal, and the mineral kingdom. There must also be a proper distribution of commodities between raw materials and finished products. The active discussion of index-numbers during the last ten years has led to a great advance in the knowledge and appreciation of the principles which should govern in the construction of such tables.* It may be reasonably presumed that the first essays in this direction were less successful than

*" In 1887 the British Association appointed a committee expressly to consider and report on this subject. The committee

the later ones, provided we believe that no partisan purpose has interfered with the singleness of aim of those who have constructed the later ones. At the same time, it is remarkable how closely the results independently reached agree, in general, regarding the course of prices, during the last twenty-five years. "If," says Dr. Soetbeer, "we compare the above surveys with one another, it must be allowed that the total index-numbers, calculated upon different methods, do not show any such wide discrepancies as might have been expected. The extraordinary lowering of the level of prices in the last decade is shown equally by them all."

As time will not permit the discussion of the several index-numbers, I take for the general purpose that of Mr. Sauerbeck, which is the one published by the Royal Statistical Society, of London, and which was

included Dr. Giffen, Mr. Inglis-Palgrave, and Mr. J. B. Martin, as well as five professors of economics who had given special attention to the matter. They sat for three years and presented several reports, some of which are highly technical. But anyone who cares to inquire into details, and who will read Dr. Giffen's report in 1889, will find that the committee substantially confirm the method of construction adopted by careful statisticians like Mr. Sauerbeck, and that his index-number is practically upon the same lines as the one the committee themselves recommend." (Foxwell on Farrer, p. 646.)

"There have been various index-numbers, seven or eight, of accredited authority; but after a careful comparison of several of these numbers I have come to the conclusion that Mr. Sauerbeck's is, upon the whole, the most carefully prepared and the one which best represents the general movement of prices." (Royal Commission on Depression in Agriculture. Prof. H. S. Foxwell, No. 23,558.)

made up on lines laid down in the report of a Committee of that society:

Average of the
Ten Yearly Numbers.

For the period 1869-78.....	99
1870-79.....	97
1871-80.....	96
1872-81.....	95
1873-82.....	93
1874-83.....	90
1875-84.....	87
1876-85.....	85
1877-86.....	82
1878-87.....	79
1879-88.....	78
1880-89.....	76
1881-90.....	75
1882-91.....	74
1883-92.....	72
1884-93.....	71
1885-94.....	69
1886-95.....	68

Here we see a steady downward movement. By single years the fall has been as follows:

1874.....	102	1881.....	85
1875.....	96	1882.....	84
1876..	95	1883.....	82
1877.....	94	1884.....	76
1878.....	87	1885.....	72
1879.....	83	1886.....	69
1880.....	88	1887.....	68

1888.....	70	1892.....	68
1889.....	72	1893.....	68
1890.....	72	1894.....	63
1891.....	72	1895.....	62

While thus the prices of commodities in terms of gold have fallen through more than one-third of their entire extent, silver has shown extraordinary firmness in relation to commodities, considering the great changes at work during the period. Compare the gold prices of commodities with the gold prices of silver, as set forth, side by side, in the following table which presents Mr. Sauerbeck's figures. It will be seen that, instead of a marked depreciation of silver having taken place since 1873, that metal for nearly twenty years held its own, on the whole, rather better than commodities. Down to 1892 prices in terms of silver* held up with extraordinary firmness.

Years.	Index-number of 45 Principal Commodities.	Index-number of Silver.
1874.....	102	95.8
1875.....	96	93.3
1876.....	95	86.7
1877.....	94	90.2
1878.....	87	86.4
1879.....	83	84.2
1880.....	88	85.9
1881.....	85	85.0

* "It is quite evident that silver has moved with the average of wholesale commodities much more closely than gold has done." (Sir R. Giffen, Royal Commission on Depression in Agriculture, No. 18,635.)

Years.	Index-number of 45 Principal Commodities.	Index-number of Silver.
1882.....	84	84.9
1883.....	82	83.1
1884.....	76	83.3
1885.....	72	79.9
1886.....	69	74.6
1887.....	68	73.3
1888.....	70	70.4
1889.....	72	70.2
1890.....	72	78.4
1891.....	72	74.1
1892.....	68	65.4
1893.....	68	58.6
1894.....	63	47.6
1895.....	62	49.

Looking at the same matter Prof. Marshall said in his testimony before the Herschell Commission (Report of 1888, No. 9625): "As regards the depreciation of silver, I am rather puzzled by the statement in the Warrant appointing the Commission, that it is to inquire into the depreciation of silver. *I do not admit that silver has depreciated, in the sense of having less general purchasing power. I think that it has appreciated, and has now a higher purchasing power as regards commodities than it had before.*"

Such is the Fall of Prices which has aroused so much feeling, which has been the cause of so much discussion, which has furnished the gravamen of the popular charges made against the demonetization of silver. The bimetallists have treated the result as due, pri-

marily and principally, if not almost wholly, to changes affecting the precious metals. They declare that the demonetization of silver by Germany, and by other States following Germany, created an increased demand for gold just at the time when gold-production was declining; and that it is this which has caused the fall of gold prices. They flatly deny the assertion of the monometallist writers that, on the whole, the normal demand for metal money is diminishing throughout the civilized world, owing to the introduction of credit substitutes and the various economies in the use of money, asserting that, in spite of these tendencies, the habits of the peoples in regard to the use and carrying of money, the rapid developments of industry and trade, and the vast increase of travel are all the time making necessary a larger use of metallic money.* Many monometallists, on the other hand, have undertaken to establish the proposition that there has been no true appreciation of gold; that its increasing power in exchange is wholly due to the multiplication of commodities and their diminishing cost of production. This view has been presented, as it has been or, perhaps, could be by no other living man, by Mr. David A. Wells, whose facility and felicity of economic illustration have given him a reputation the world over. Mr. Wells's book, entitled "Recent Economic Changes," comprises a marvelously interesting and impressive statement of instances of the increase in the power of labor and capital during the period imme-

* For the argument in disproof of the monometallist opinion that credit devices are displacing money, see the article of Prof. Willard Fisher, *Journal of Pol. Econ.* (Chicago), Sept. 1895.

diately preceding the issue of that work. Mr. Wells has a genius for this sort of thing; and his book embraces a wide range of illustration. I shall not attempt to enter into an analysis of the matter he presents. That would require a book by itself. I will only remark, in the most general way, first, that such a thesis as that which Mr. Wells, in common with Prof. Laughlin and Mr. Atkinson, has undertaken to defend is, on its very face, monstrous and absurd. A number of nations have largely diminished (relatively) their use of silver; and have largely increased, both relatively and absolutely, their use of gold. This *must* have had an effect to lower prices, expressed in terms of gold. In this connection Sir Robert Giffen remarks: "If we were told that copper, or iron, or wheat were rising because there was a deficiency of the supply of them to meet all the demands, we should accept the statement as a matter of course. But what is true of copper, or iron, or wheat must equally be true of any commodity which happens to be the standard monetary substance. If gold or silver is that substance, and gold or silver is increasingly in demand without any corresponding increase in supply, then people who want gold and silver for any purpose must give more for them." Secondly, many of the instances which Mr. Wells adduces are of such a striking character as to create an altogether undue impression upon the mind of the reader. Thirdly, whole classes of instances which he gives of a greatly reduced cost of production are such as concern only the profits of the most favored producers, and are not such as affect, perhaps in the slightest degree, the prices at

which commodities are sold, which, as is well known, are determined by the cost of production under the least fortunate conditions. Fourthly, many of the most impressive examples which Mr. Wells gives of the increased power of human labor and capital are drawn only from limited fields or single countries, while vastly larger territories have scarcely felt the slightest influence from such inventions, discoveries, and improvements in the arts. Fifthly, Mr. Wells overlooks the fact that, during the twenty- or twenty-five-year period immediately preceding 1873, during all which time prices were rising, enormous developments of the same general character, in increase of human power in production, took place. Those changes were not of the same absolute importance as the changes described by Mr. Wells; but it is fairly a question whether they were not of equal relative importance.

Time will not serve to attempt anything like a thorough discussion of this subject, even were a nice determination possible. I believe that the truth lies between the two extremes, in this matter. I hold, with the leading bimetallist writers, (1) that a fall of prices does not necessarily accompany a great reduction in the cost of production, as is witnessed by the experience of the world from 1853 to 1873, when enormous changes of this character were taking place, while yet prices not only did not fall but distinctly rose. (2) That, in spite of the introduction of credit substitutes for money and of various economies in the use of money, the tendency of the age is markedly in the direction of a larger demand for metallic money; and that this demand, together with the demand for new

gold for the currency of several European nations, has been very inadequately met by the production of the last twenty years. On the other hand, I concede to the monometallists that there has been a notable reduction in the cost of producing very many commodities, which, by itself alone, would tend to bring about some part of the result under consideration. I do not think I could express my own view better than by quoting the words of Sir Robert Giffen, one of the pillars of gold monometallism. He says: "Two causes only have been suggested. One is a greater multiplication of commodities, and diminution of the cost of production, due to the progress of invention, improved facilities of communication, lower freights, international telegraphy, and the like circumstances. The other is that the precious metal used for standard money, namely, gold, has become relatively scarcer than it was, its production being diminished on the one hand, and the demands for it on the other hand increased. . . . *I am disposed to give greater weight to the latter.*" Sir Robert finds it clear that the depression of trade "is largely due to some permanent cause which has lately begun to operate, to which trade was not subject for many years after 1850, and which is now in full operation, and which has for its effect to prevent a rise of prices in good years to what was long considered the customary maximum, and to precipitate a fall in bad years to a point much below the customary minimum." The same high authority, perhaps the first commercial statistician of the world, gave testimony to the same effect before the Royal Commission on Depression in Agriculture;

"The fall of prices is attributable to the contraction of gold very largely." (No. 18,485.) Ques. "To what do you attribute the fall in agricultural prices?" Ans. "Chiefly to the same causes that have produced the fall in general prices." (No. 18,565.) Ques. "What would they be?" Ans. "The contraction of money relatively to what went before. That is the difference between the last twenty years and the twenty years before." (No. 18,566.) Ques. "You still, I gather from your evidence to-day, quite adhere to the opinions which you have very emphatically stated in this 'Essay on the Movement of Prices and Wages,' that 'the recent change from a high to a low level of prices is due to a change in money of the nature or in the direction of absolute contraction'; and again, 'the inference seems conclusive, therefore, that after 1873 the alteration in the economic movement was in money, and to this must be ascribed the change of prices which has occurred?'" Ans. "I think that is a fair statement of what happened after 1873." (Not 18,621.)

In the same spirit, the six gold monometallists of the Herschell Commission, in their separate report, frankly admit that no inconsiderable part of the fall in prices has been due to a proper appreciation of gold, though they add: "We think the sounder view is that the greater part of the fall has resulted from causes touching the commodities rather than from an appreciation of the standard." Mr. Goschen, a very high authority, has repeatedly given expression to his belief that the relative scarcity of gold is the predominant cause of the fall of prices which has taken place since the demonetization of silver. In the debate in the House of Commons, February 28, 1893, Mr. Goschen said: "I do not know that the general view that the lowering of prices is caused by the appreciation of gold could seriously be questioned."

In addressing the Chamber of Commerce in Manchester in 1885, Mr. Goschen said: "The case seems to me to lie in a nutshell. You have the decreased production of gold; you have the increased production of commodities; and you have the fall in prices which these two factors ought to produce. It ought to have produced it and the fall is there; but, somehow or other, there are many persons who are furiously angry, if people contend that there is any relation between the cause and the effect."

One of the strangest of the many strange arguments by which it has been sought to defend gold monometallism in these last few years is that which points to the enormous accumulations of gold in the treasuries and banks of Continental Europe as proof of the abundance of the yellow metal. The facts that the Treasury and Bank of Russia control over one hundred millions sterling of gold, and that the Banks of France and Germany have more than doubled their stock since 1872, are contemplated by the writers of this school as proof that the progress of gold monometallism has served the public welfare, with the single possible exception that, if anything, gold may be just a little too abundant for the best effect. In his tract "Has Gold Appreciated?" Mr. Charles C. Jackson says: "Judging by the only safe indications we have,—namely, the changes in the amount of metal money lying idle in the four great banks of Europe at periods of especially low rates of interest and low prices of merchandise,—money has become more and more plenty as time has gone on." The insertion of the two features—"especially low rates of interest and

low prices of merchandise"—gives the whole paragraph the air of being intentionally funny. It would have been just as rational for a citizen of Chicago to take a visitor into the station-yards of that city during the railroad riots of 1894 and point to the enormous increase of engines and cars within those yards during the few days preceding, as a proof of the prosperity, and a measure of the growth, of the transportation business of Chicago. The increase of the cars and engines within the yards was not a healthful sign. They remained in the yards because there was danger outside. No more are the excessive accumulations of gold in banks and treasuries* which have characterized the progress to gold monometallism a healthful sign. These "especially low rates of interest and low prices of merchandise" explain the accumulation. The normal effect of currency-contraction being to diminish the profits of productive enterprise and to aggravate all ordinary tendencies towards commercial and financial disorder,† it is natural that, when this cause has proceeded a long way, there should be large accumulations of capital lying idle in banks, at "especially low rates of interest." Cars and engines are made to go upon the track and carry men and merchandise, though some cars and some engines must at any given time be

* Of course, in the case of the government Banks of Russia, Germany, and France, the accumulations of gold have largely a political and military significance. It is not the actual wants of commerce, but the possible exigencies of war, which are in view of those who control the policy of these institutions.

† See pp. 273-7,

within the yards. Gold is mined and coined that it may run its course as money, effecting the exchange of commodities, and furnishing the means for an extension of existing and the opening of new industries, though some gold must at any time be in treasuries and banks, as a guaranty for immediate liabilities. Any accumulation largely in excess of what is usual, whether of cars and engines in the yards of railroads, or of gold in the vaults of treasuries and banks, is rather a subject of complaint than of gratulation. When such an accumulation of gold is accompanied by "especially low rates of interest and low prices of merchandise," there is strong reason to suspect the operation of causes injurious to industry.

Whether we adopt the extreme view that substantially the whole fall of prices has been brought about by the demonetization of silver, or the qualified view of this subject taken by Sir R. Giffen and Mr. Goschen, and by the Royal Commissioners of 1885 to 1888, we have enough on which to found the gravest charges against that policy. The long-continued fall of prices, due to changes in the money-supply, constitutes one of the most distressing conditions under which trade and production can be carried on. As Mr. Balfour said, in his Mansion House speech, a slow appreciation of the standard of value "is probably the most deadening and benumbing influence that can touch the springs of enterprise in a nation." The same sentiment is expressed by the distinguished Swiss economist, Prof. Walras, of Lausanne, who says that a permanent condition of falling prices would give us a permanent state of industrial crisis. Sir Robert Giffen,

himself, has said: "An appreciation of the money of a country forced on by a government is simply a measure for disabling the productive powers of the people and making them poorer than they otherwise would be."

As this is a matter of supreme importance in economics, let us undertake a more careful analysis than we have yet had occasion to attempt. In connection with the great increase in the money-supply, due to the discovery of South American and Mexican mines, we inquired what were the effects upon public prosperity of a change in the currency in the direction of inflation. Let us now inquire what is the social and industrial influence of a change which is in the nature of contraction. Here we find a remarkable alteration in the views of those who especially affect economic orthodoxy. One would suppose that, if the money function is of such supreme importance as to make inflation a certain source of untold mischief, it could hardly fail to be admitted that contraction might also be a possible source of mischief. But it has not pleased the economists of this school to admit that "sauce for goose is sauce for gander." The very writers who, during the inflation period in the United States, urged with the greatest earnestness the evils of a rapid increase of the money-supply, teaching that it disturbed the standard of value, altered the distribution of wealth, perverted the course of industry, promoted speculation, generated dishonesty, and in every conceivable way did mischief to the body politic and economic, tell us that the money function is of so little consequence, commercially, industrially, and

socially, that contraction is of no account whatsoever. They argue that the production of wealth is really a matter only of labor-power, capital-power, and land-power; and that such production may be trusted to go on without let or hindrance from any such trivial accident as contraction of the currency. I will not hold all the economists of this school responsible for so extreme a statement as that which Mr. David A. Wells makes in his *Cremation Plan of Resumption*: "Were all the currency in the country absolutely swept out of existence to-morrow morning, there would doubtless be much inconvenience experienced, the same as though all the yard-sticks, foot-rules, and bushel-measures were to disappear; but, in either case, there would not probably be one less acre of land cultivated, yard of cloth made, ton of coal dug, or pound of iron smelted, in consequence." Or for his other statement, that "a three-cent piece, if it could be divided into a sufficient number of pieces, with each piece capable of being handled, would undoubtedly suffice for doing all the business of the country, if no other instrumentality was available." But I think it not unfair to say that, with somewhat less of extravagance, they are disposed to look upon the possible evils of a diminishing money-supply as of small consequence. Leaving, however, all question as to the consistency of the "orthodox" writers, in this respect, let us inquire whether a diminishing money-supply could set in motion forces prejudicial to public prosperity, and, if so, in what ways it might be expected that injurious results would occur.

In the first place, a contraction of the currency,

either absolute or relative, that is, either a positive diminution of the money-supply, or a failure to keep up with the demands of commerce, due to enlarged productiveness of labor and capital and to the multiplication of the uses of money, has the necessary and immediate effect of enhancing the burden of all debts and fixed charges. Money having been taken as the standard for determining the rights of the creditor and the obligations of the debtor, in all cases of deferred payment, a diminution of the money-supply, or a failure to keep up with the demands of commerce, must add to the weight of the burdens imposed upon the present by the past. Those burdens are, at the best, necessarily, under the conditions of human society, very weighty. Every man of affairs knows how "the interest-charge" bears down upon productive enterprise, even the most successful. Wherever the conditions of business cause enterprise to drag in the least: in agriculture, except where natural resources are richest; in commerce, except with the ablest management; in manufactures, except under conditions which create a practical monopoly, or at least give some marked advantage over competitors, the weight of the interest-charge becomes galling and oppressive. Few men can till the soil, in a long-settled country, if they have to borrow all their capital; few men can carry on trade and manufacture, except under rare conditions, if they have to borrow all their capital. I appeal to every man of business for the truth of this statement. The margin of buoyancy in the human frame is so slight that it takes but very little around a man's neck, while he is struggling in the

water, to carry him to the bottom. The margin of profit in ordinary business is so small that any enhancement of obligations derived from the past must be seriously felt; while, if that enhancement persists through a considerable period, the drain upon productive enterprise cannot fail to tell heavily upon the vitality of the commercial and industrial system. This must be so from the purely actuarial point of view; but it is fairly to be questioned whether the moral influence of such a cause, in inducing discouragement and lack of confidence, does not operate with even greater force.

But the chief of the evil effects produced by a diminishing money-supply is, in my opinion, to be seen in the impairment of enterprise on the part of the producer and the exchanger of wealth, due to falling prices. It must be remembered that, under the modern system of commerce and industry, the sole motive for the production of wealth is found in the anticipated profits of business. A manufacturer buys two hundred thousand dollars' worth of material and pays three hundred thousand dollars in wages because he hopes, with good fortune, to realize perhaps ten or fifteen or twenty thousand dollars in profits. Unless he sees his way fairly open to realize something, after all his outlay and risk, his interest in production ceases, except so far as he may, for a time, carry on business for the sake of holding his laboring force or his circle of customers together. Yet a very small reduction in the price of the large body of goods produced may entirely wipe out the utmost profit he could reasonably promise himself; may even turn the antici-

pated profit into a loss.* In such a case, even a slight movement in the direction of prices falling between the time when materials are purchased and manufacture undertaken and the time when goods are to be marketed and paid for may, if persisted in, become a very serious matter. There will always be, in all branches of business, those whose financial strength and power of organization enable them to overcome adverse conditions and to conquer fortune. Not the less is there, in every branch of business, a lower third, on whom competition always presses with great severity; to whom it is a continual struggle to get back their outlay; who are driven to their wits' ends and to the limits of their patience to keep their place in the industrial order. These men are at a disadvantage in buying, in making, and in selling. Their bad debts are numerous; they have to pay heavily for discounts; they have perhaps not the means or the credit required to obtain the most modern machinery

* "Let us suppose, for instance, that a man borrows £100, under contract to pay back £105 at the end of the year. If meanwhile the purchasing power of money has risen 10 per cent (or, which is the same thing, general prices have fallen in the ratio of 10 to 11), he cannot get the £105 which he has to pay back without selling one-tenth more commodities than would have been sufficient for the purpose at the beginning of the year. Assuming, that is, that the things which he handles have not changed in value relatively to things in general, he must sell at the end of the year commodities which would have cost him £115 10s. at the beginning, in order to pay back with interest his loan of £100; and therefore he has lost ground unless the commodities have increased under his hands $15\frac{1}{2}$ per cent. While nominally paying 5 per cent for the use of his money, he has really been paying $15\frac{1}{2}$ per cent." (Marshall's Principles of Economics, p. 674.)

and the best appliances. To men in such a situation, steadily falling prices are embarrassing, harassing, and oppressive: a weight around their necks which tends continually to wear them out and threatens sooner or later to send them to the bottom.* Their margin is so small, at the best, that a slight hostile force may produce the most seriously injurious results to them; while the embarrassments and failures of this lower third of the producing class constitute a continual menace to the abler men of business in their respective branches of manufacture, demoralizing the market for goods, and unsettling the market for loans with continual alarms. I have quoted an extended paragraph † from the Report of the British Commission on the Depression of Trade, regarding the influence of falling prices upon trade and production, through the impairment or destruction of business profits. You will remember that the Commissioners, who were nearly unanimous in this view, discussed the subject in precisely the same vein with the remarks I have just offered. They stated the matter almost if not quite as strongly as I have done.

But there is still a further potency for mischief to be found in declining prices. All that has been said would be true were there not in modern business a strongly marked tendency to occasional commercial

* From the first Annual Report of the U. S. Commissioner of Labor (page 67), and from the recent statistical abstracts published by the government, it appears that the number of commercial failures increased from 4069 in 1872 to 10,907 in 1890 and to 15,242 in 1893. In 1894 it was 13,895.

† Pages 200-1.

crises and to "hard times" in productive industry. It seems inseparable from the existing organization of affairs that periods of highly stimulated production should alternate with periods of depression and restricted production. Under this universal and seemingly necessary condition of commerce and industry, a general downward tendency of prices makes disturbances more frequent, increases their severity and protracts their duration. With a moderate, progressive increase of the money-supply and a general upward tendency of prices, men of business will be readier to assume the initiative; will be more courageous and hopeful; will display greater courage and energy. We all know that it is entirely possible that production should be locked in "a vicious circle," producers closely limiting their operations because consumption is checked; consumption remaining all the while at a minimum for no other reason than that the operative class, producing little, have little with which to purchase goods. We have seen, in our own lifetime, such a situation persisting through a long period simply because men of business would not believe in the possibility of recovery, and each waited for the other. Wherever, perhaps by causes purely accidental in the original instance, industry and trade fall into this condition, the restoration of confidence and enterprise must be tardier and more difficult when the general movement of prices is downwards than when it is upwards. I have just now said that it is a little thing around a man's neck which will overcome his margin of buoyancy, slight at the best, and drag him to the bottom. It is equally true that it is a very little thing

under a man's arms which will so enhance his margin of buoyancy as to keep him afloat for hours.

SUBSTITUTES FOR MONEY.

But one more remark requires to be made, and that is with respect to the argument, so commonly employed in these days and already more than once alluded to, by which it is attempted to be shown that the volume of actual money is of little consequence, by reason of the operation of the credit system, which, it is asserted, makes good any deficiencies that may exist in the body of the currency. On this point I quote the following paragraph from the address of Mr. L. L. Price, of Oxford University, as President of the Section of Economic Science and Statistics, at the Ipswich meeting of the British Association for the Advancement of Science, last year. Mr. Price remarks:

"It is sometimes asserted that the influence of credit on prices is so considerable as to reduce to unimportance a decrease in the available supplies of gold. It may at once be admitted that *the modern extensive development of credit obscures the relation between the metal and prices; but it does not destroy it*; and, according to the view we have been trying to emphasize, the mission of economics is to remove this veil of obscurity. In this instance it may show that the relation is not unreal because it is indirect; that credit, expanding and contracting of itself, owing to increasing or diminishing speculative activity, is yet limited and controlled in its movements by the changing dimensions in the basis of cash on which it rests; and that, through the bank reserves meeting or restricting the demands for petty cash and permitting an expansion or causing a curtailment of credit, the supplies of the standard metal* exert an important influence on prices."

*In his testimony before the Herschell Commission (No. 9629), Prof. Marshall said: "I accept the common doctrine that

Prof. Jevons states that credit gives a certain latitude, without rendering prices ultimately independent of the metallic basis. I quote also from the remarks of Mr. Beerneart, of Belgium, at the Conference of 1892: "The importance of money, especially metallic money, cannot but grow greater. The mechanism of exchange is perfected; the use of checks and other instruments of credit is developed. They economize the actual transfer of money, and so diminish the risks, costs, and delays which result from them; but *they cannot supplant the precious metals.*" Prof. Shield Nicholson compares those who adduce the fact that trade is so largely carried on by means of paper, as a proof that metallic money has ceased to be of any great consequence, without reflecting that the paper, itself, is conditioned upon the existence and presence of the metal, to an architect who should declare that it didn't in the least matter of what the foundations of a building consisted, since all the important parts would be supported by the first story. I am convinced that what these economists say regarding this matter is strictly true. While the expansion of the credit system may, in a measure, disguise the influence of a diminishing money-supply, it cannot, at the best, wholly offset that influence; while it is fairly a question whether the operations of credit are not less active, rather than more active, when contraction of the currency is going on than when the currency is undergoing a moderately progressive increase.

prices generally rise, other things being equal, in proportion to the volume of the metals which are used as currency."

THE CASE OF THE LABORER.

How, meanwhile, has the laborer fared? The answer to this question will, by itself, cover far the greater part of the possible ill effects or good effects of the monetary policy adopted in 1873. If it can be shown that, taking the world at large, the great mass of the working people have been benefited, while no important body of them has been injured, not one of us probably would be disposed to further continue the matter. It is true there are other rights in the world than those of the working classes, other interests to be conserved. Landowners have their rights and their interests, which should be as loyally defended against encroachment and proposed spoliation as the scanty wages of the poorest laborer. Capitalists have their rights and interests, which cannot be violated or confiscated, in whole or in any part, without social, political, and industrial retributions. But, after all this is said, it still remains true that the condition of the working classes, if we contemplate a considerable period of time, may safely be taken as representative of the general condition of society.

In respect to this point, the effects of demonetization upon the laborer, there has been exaggeration and passionate statement upon both sides. Many bimetallists have been wont to write as if the poor had all the while been growing poorer, and the laboring classes had been ground more and more under the heel of monopoly. On the other hand, the monometallists have made use of certain wage-statistics as conclusive of the whole matter, because these seem to

show that wages have actually advanced during the period in question, neglecting several considerations which are essential in the full consideration of the case. First, wage-statistics never do and never can be made fully and fairly representative of the facts relating to the condition of unorganized and unskilled labor. It is this class which, were industrial injuries to be suffered from such a cause as we are considering, would necessarily sustain by far the greater part of the pressure and the loss. It might even happen that, through a long course of experiences prejudicial to the laboring classes as a whole, certain specially favored and highly organized bodies of laborers might be found to have distinctly advanced their condition. Second, none of the statistical tables to which the monometallists point with so much confidence sufficiently take into account, if they take into account at all, the loss of annual, as compared with daily, or weekly, wages through irregularity of employment.* Irregularity of employment is furnishing one of the most important industrial problems of the present time. Irregularity of employment has increased greatly during the past twenty-five years. This is not only a matter of common knowledge and of every intelligent man's observation; but it is shown by an abundance of statistical evidence. Irregularity of employment would have increased during the last quarter of a century whether demonetization took place or not;

* These tables not only are based upon the daily or weekly wages of men who may be idle a large part of the time, but they also and necessarily exclude from view those who are perhaps habitually unemployed.

but if the view regarding the influence of that demonetization which is held by bimetallists, and which is sanctioned by nearly all intelligent and candid monometallists, as shown by the extracts taken from the reports of the Commission on the Depression of Trade and of the Herschell Commission, and from the testimony or the essays of economists like Prof. Jevons, Mr. Goschen, Sir Robert Giffen, and many others be correct, demonetization must have promoted all existing tendencies towards fluctuations in production, consequent irregularity of employment, and resulting loss of working-time.

These are considerations the whole force of which goes to reduce the apparent extent of the increase of wages since 1873, as shown by the statistics adduced by monometallist writers. There is, however, a much more telling reply to be made to those who assume that, if they can show that the condition of the working classes has not been impaired during the past twenty-five years, and, even more, if they can show that there has been an actual advance during this period, they have refuted the arguments of their opponents. The question is not whether wages are as high as they were in 1873.* It is, whether wages

* Mr. Atkinson seeks to meet the bimetallic demonstration of the rise of gold, by the introduction of a new test. He declares that we ought no longer to take the prices of commodities as a measure of the appreciation or depreciation of gold, but should use labor as that measure. Labor, he declares, will produce as much gold now as it did in 1873. But I venture to ask why, if human labor will—thanks to improvements in the arts and discoveries in nature—produce more of the *useful* metals than it did in 1873, it should not also produce more of the *precious* metals?

are as high as they would have been but for the act of demonetization and its consequences. The wages of workingmen might be found to be considerably larger than they were at the beginning of the period; and yet it might be clear as light that the laboring classes had been subjected to great injury and loss. The working classes are entitled, not to the wages they received in 1873, but to the whole of the wages which, under the conditions of nature, of industry, and of society, might fairly come to them from the employing class, through the normal operation of self-interest in production and in trade. If any cause has been allowed to enter which could, by the proper exercise of the powers of government, have been kept out; if any cause has been actually brought into operation by the neglect or mistake of government itself, to reduce the fullness and completeness with which the world's production of wealth has been carried on, or to reduce the laborer's share in the resulting product, then the working classes have a grievance, none the less because theirs is a case, not of *damnum emergens*, but of *lucrum cessans*.

This last point is not one of slight consequence. I do not mention it in a spirit of captiousness or of cavil. The enhancement of the Social Dividend during the past twenty-five years should have been enormous. The monometallist writers have com-

If mankind are to have the benefit of cheaper copper, iron, lead, zinc, and aluminum, why is it not to be desired that mankind should have the advantage of cheaper gold? In other words, why should not the general law of progress, invoked by M. Chevalier (p. 154), hold here as well as elsewhere?

pletely given themselves away on this point. In attempting to show that the fall of gold prices has not been due to causes affecting the metal, but to the greater mass of commodities, they have drawn pictures of the increased productiveness of this age, through improvements in the arts and discoveries of new resources in nature, which, as I said regarding Mr. Wells's book, are of the most fascinating and striking character. Now for all of this the monometallists are bound to give a full account, when they come to deal with the facts of wages. If the increase of human production has been as great, or anywhere nearly as great, as they have represented in their argument against an appreciation of gold, then they are bound to show a tremendous advance of wages; or else the working classes have a right to demand where that increased production has gone.

For myself, I have given no small part of my strength during the past twenty years to the advocacy of that economic view which makes the laborer the residual claimant upon the product of industry. This is not the time or the place in which fully to set forth that view of the distribution of wealth. Suffice it to say that it rests upon three considerations.

First, rent,* under the Ricardian law, does not depend upon the activity, the intelligence (above the normal), or the acquisitiveness of the landlord; but is

* I am speaking here only of Economic Rent, the remuneration paid for the use of the native properties of the soil or for advantages of location, not of the rent of houses, or of the returns to capital invested in productive improvements of land,

fixed and determined by economic laws, independently of the desires or efforts of the recipient.

Second, profits (considering as such only the surplus over the amount which the members of the employing class, successful and unsuccessful alike, might fairly look to receive as wages if employed by others), profits, in this sense, being due to superior productiveness on the part of the successful employers, come under the same law of distribution as the rent of land. In this view, profits no more enter into that cost of production which determines prices, than does economic rent; and are no more obtained by deduction from wages than is rent. So far as both these agents of production are concerned, prices are determined without respect to them. The prices of agricultural products are fixed by the cost of production on lands that pay no rent, or a rent so small that, for all purposes of economic reasoning, it may be disregarded. The prices of manufactured goods are determined by the cost of production on the part of those employers who, from the limitations of their powers, achieve no profits, or, at any rate, no profits above that low minimum—namely, the wages to be earned by the same persons if employed by others—which, according to this view of the subject, are to be regarded as no profits at all.

Rent and business profits, thus partaking of the nature of differential gains, neither enter into the cost of production, in the sense of determining prices nor are obtained by deduction from wages. Rent and profits thus being eliminated, only two elements, namely, wages and interest, enter into cost of produc-

tion, since these two alone are represented in the cost of production of those goods which, being produced at the greatest disadvantage, that is, upon the margin of production, determine prices.

Third, between interest and wages, that is, between the remuneration of the capitalist (not as employer) and the remuneration of the laborer, how does the issue shape itself? I answer that the course of economic history shows, without an important exception and beyond the possibility of challenge or question, that the capitalist class are not able to combine and stand out for a higher remuneration, or rate of interest, than that which is determined by the demand for and supply of capital under the most primitive conditions of bargaining. No organization of capitalists, whether of banks or of syndicates and trusts, has yet shown a capability importantly to affect the general rate of interest,* through any period so long as a year. The impotence of capital in this respect is remarkable. In the loan of "money," as it is called, competition, owing to the eagerness with which the opportunities for profitable investment are sought and owing to the rapidity with which capital, after a certain point has been reached, tends to accumulate, still seems almost as perfect as in the most primitive stage of industrial society. Under these circumstances, we have, assuming the activity, alertness, and intelligence of the working classes, their eager pursuit of their own economic interests, and the absence of

* I leave out of account opportunities for the exploitation of newly-discovered resources or forces in nature by capitalists acting as *entrepreneurs*.

laws and combinations placing them at an artificial disadvantage in competition for the product of industry, what seems to me the practically complete realization of the view I have stated. I appeal with confidence to every one who knows the industrial history of the last seventy years, whether the proportional share of the product going to rent and profits has not diminished, under the improvements in the arts of production and transportation which have taken place; secondly, whether the rate of interest has not steadily fallen; and, thirdly, whether that share of the product which goes to the laborer in wages has not increased, on the one hand at the expense of rent and profits, as differential gains; on the other hand at the expense of interest, as the remuneration of an agent of production which is at a natural and constantly increasing disadvantage in asserting its claims upon the product of industry. Certainly, if the view that the laborer is the residual claimant upon the product is not founded upon sound economic considerations, all things have conspired during the last two generations to give it the semblance of truth. The whole course of economic events has been exactly as if such a law governed in the distribution of wealth.

To return to the immediate question of the influence of demonetization upon the condition of the laboring class. Nothing that is charged by the bimetalists against this measure would be of a nature to put the working class at any disadvantage, special and particular to themselves, in competing with those who represent other agents of production. Since production has admittedly increased, and increased largely,

since 1873, it is, therefore, a matter of course that wages have increased. When, however, we ask whether wages have increased as much as they would have done but for demonetization, we are fully justified in answering in the negative, for it seems to me indisputable that production has been hampered, harassed, and restricted in its scope and energy by the "break of gauge," the dislocation of international exchanges, and by the effects of the appreciation of gold upon the profits of the employer. It is not because demonetization has put the workingman at a special and particular disadvantage in dealing with his employer; but because that employer has been put at so great a disadvantage in conducting his operations, large or small, that the laborer has necessarily suffered with him. That profits, that is, the profits of active business, have been impaired or made precarious in a degree which has hampered and restricted trade and production, seems beyond question. In this connection, I quote, as of great significance, a single short paragraph from the report of the British Commission on the Depression of Trade and Industry. That paragraph has the side-note: "Complaints of depression proceed chiefly from the producing class"; while the paragraph itself reads as follows: "It is from this class, and more especially from the employers of labor, that the complaints chiefly proceed. On the other hand, those classes of the population who derive their income from foreign investments, or from property not directly connected with productive industries, appear to have little ground of complaint; on the contrary, they have profited by the remarkably

low prices of many commodities." (Final Report, xi.)

The foregoing I believe to be a fair and true statement of the relations of the laboring class to the effects of the demonetization of silver. They have, through all this period, obtained as large a share of the product of industry as they had in 1873. They have obtained an even larger share, through the force of that position of vantage which I have indicated as belonging to them. Production has increased and increased greatly since 1873, by reason of improvements in the arts and the discovery of new resources in nature; and here, again, the working classes have gained. But production has not increased as much as it ought to have done; the cause of this has been the dislocation of international exchanges and undue impairment and precariousness of business profits; and hence the working classes have suffered, and have suffered greatly, from demonetization.

THE END.

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